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Economic Trends for Colorado Through August 2019

Colorado-based Business and Economic Research
Prepared
September 25, 2019

2019 Economic Trends for Colorado

Through August

For about a year there have been numerous articles in the media suggesting a recession is right around the corner. The most current data shows the U.S. and Colorado economies are on solid footing. Growth in Q3 and Q4 may be stronger than Q2 for Colorado. Colorado is on track to add 52,400 jobs in 2019, an increase of 1.9%. The current unemployment rate is painfully low at 2.8% and businesses are struggling to find qualified workers. The contents of this chartbook are listed below.

United States

- U.S. Real GDP, Employment, Job Openings, and Inflation
- Industrial Production and Capacity Utilization
- Manufacturing and Nonmanufacturing Indices, Manufacturing Shipments, Manufacturing Employment, PBS Employment, and Real Exports of Goods and Services
- Retail Sales, and Auto and Light Truck Sales
- Single Family Permits, Construction Spending, 30-Year Fixed Rate Mortgages, NAHB HMI and Housing Starts, and Housing Prices
- S&P Performance and Volatility
- Federal Reserve Leading Indicator, NFIB Index, Michigan Consumer Sentiment
- Summary

Colorado

- Colorado Population
- Employment, Percent Change in Employment, and Occupations
- Unemployment Rate, Change in Labor Force, Initial and Continuing Claims
- DIA Passengers, New Vehicle Registrations, and Venture Capital
- Building Permits, Valuation, and Housing Prices
- Oil Production, Oil Production by State, Oil and Gas Production by County, and Prices
- State Government Funding
- K-12 Education
- Summary

The 2019 forecast can be found at <https://cber.co/economic-forecasts/cber-co-economic-forecast/>. Monthly economic updates are available at <https://cber.co/economic-updates/>

U.S. Economy





The U.S. Economy

Real Gross Domestic Product, Employment, Job
Openings, and Inflation

Quarterly Real GDP Growth

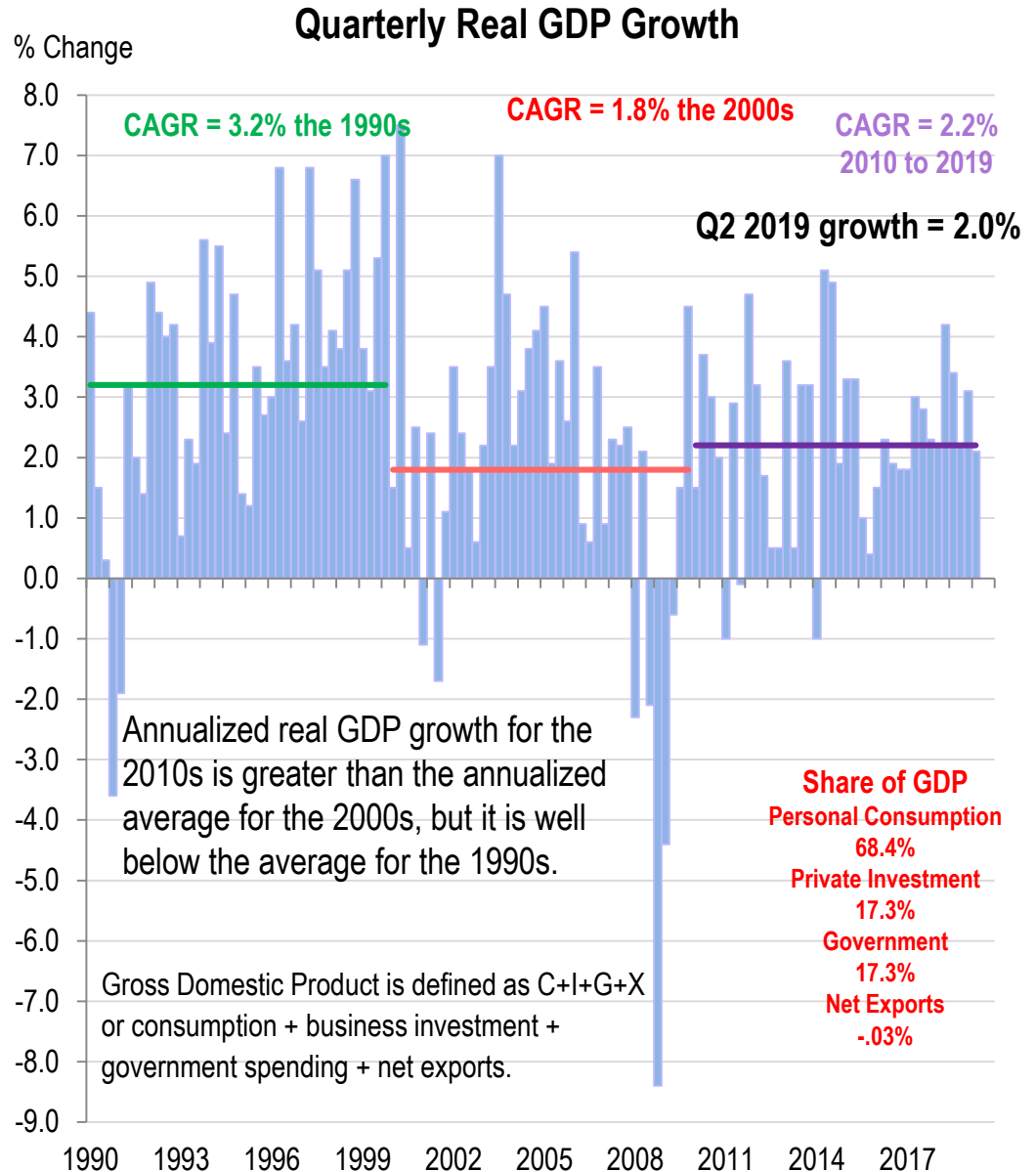
Historical United States

Between 2010 and 2019, quarterly real GDP growth ranged from -1.0% to 5.1%.

The third estimate for Q2 2019 real GDP growth was revised downward to 2.0%. Overall growth for 2019 will be in the range of 2.3% to 2.5%.

The growth was driven by personal consumption (as usual) and government spending at all levels. Growth was partly offset by private inventory investment, exports, and nonresidential fixed investment and residential fixed investment.

Q2 2019 is the 21st consecutive quarter of positive growth since Q1 2014.

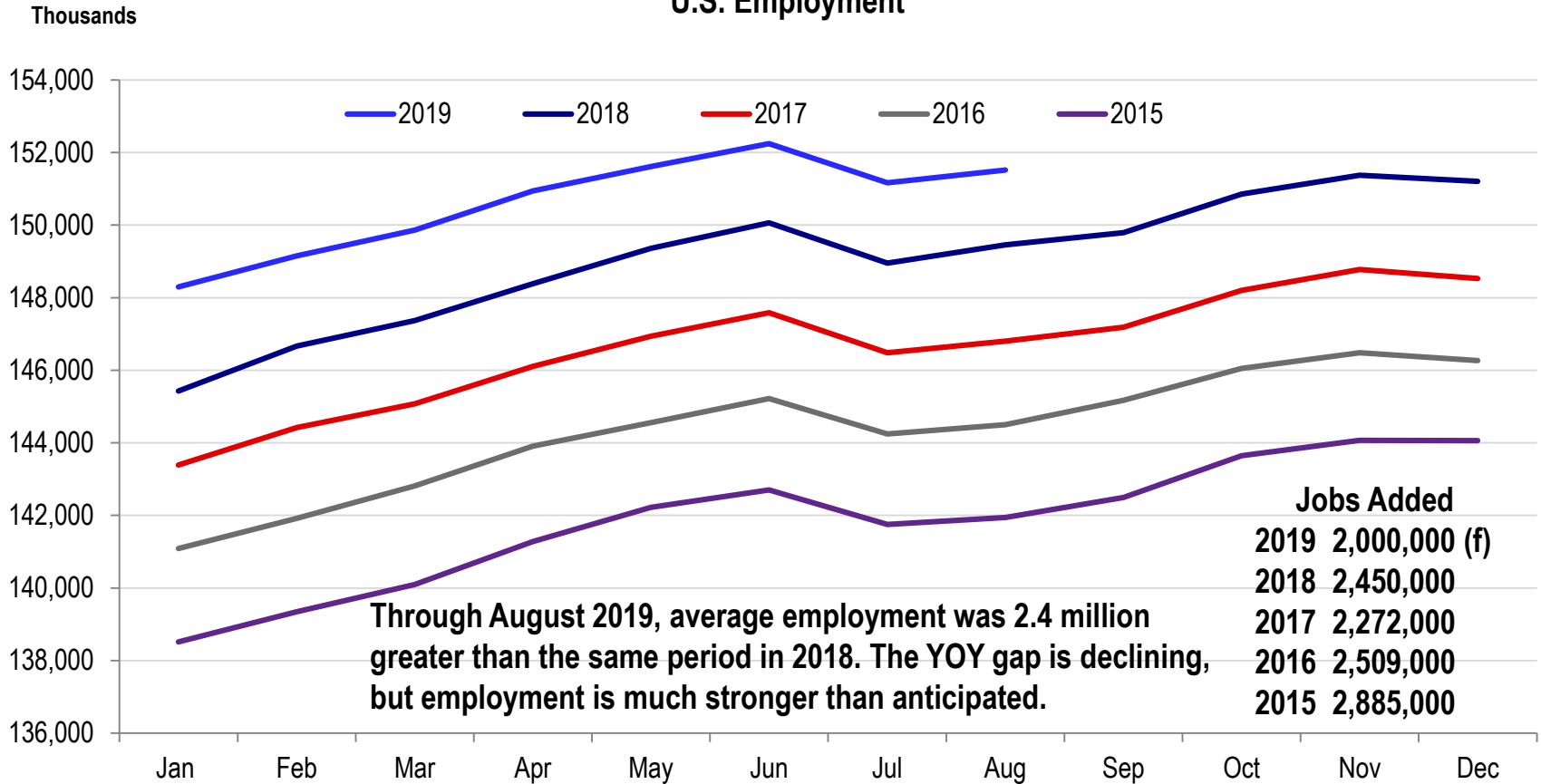


Source: Bureau of Economic Analysis, Table 1.1.1, Share of GDP based on 2017, cber.co.

U.S. Employment

2015 to 2019

U.S. Employment



Source: BLS, NSA, cber.co. Note: CES Employment is also referred to as nonfarm wage and salary employment.

Job Openings vs. Number of Unemployed

United States

Job Openings vs. Number of Unemployed



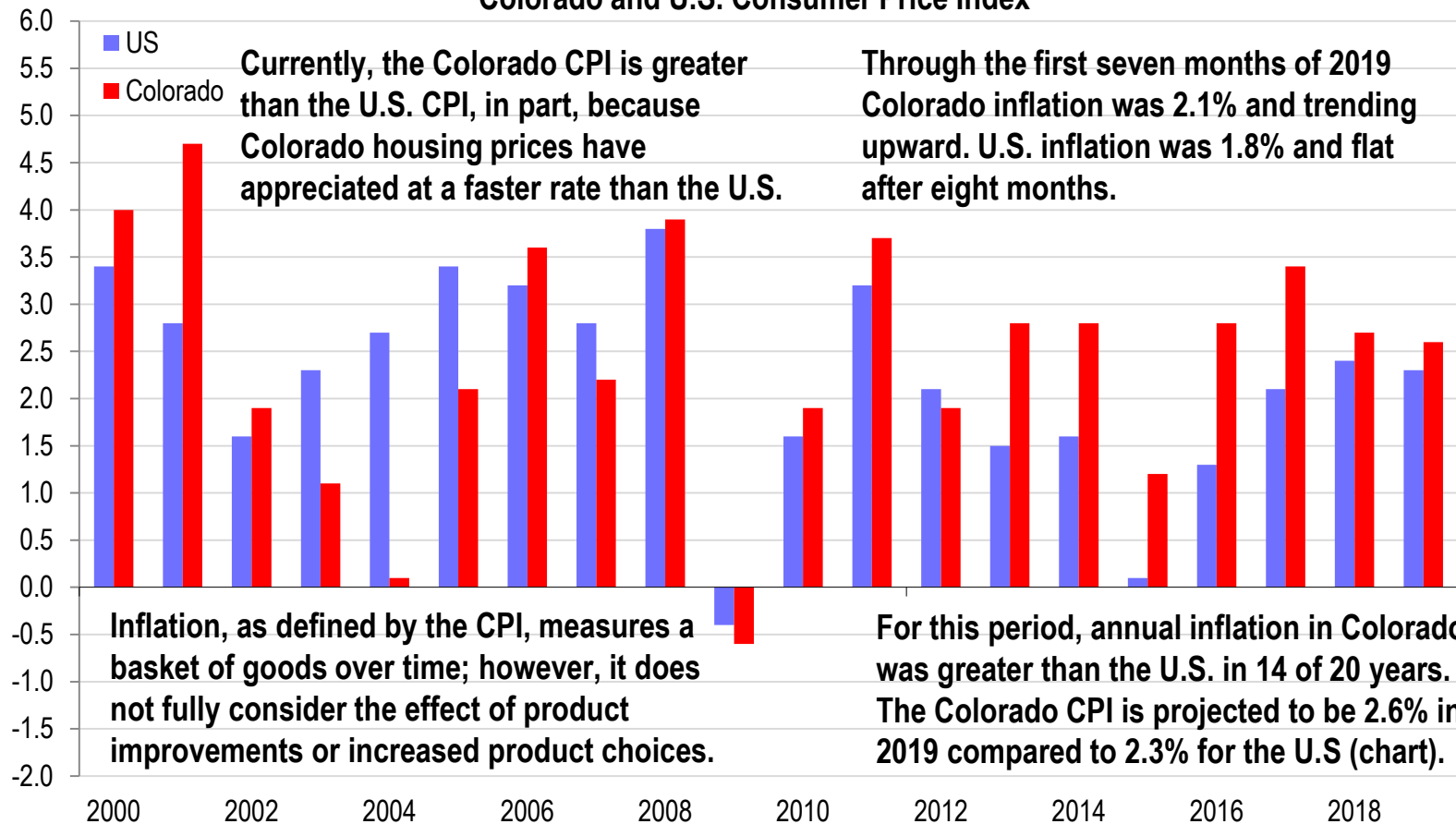
Source: Bureau of Labor Statistics, SA, cber.co.

Consumer Price Index (CPI)

Colorado vs. U.S.

1982-84=100,
% change

Colorado and U.S. Consumer Price Index



Source: Bureau of Labor Statistics, SA, cber.co.



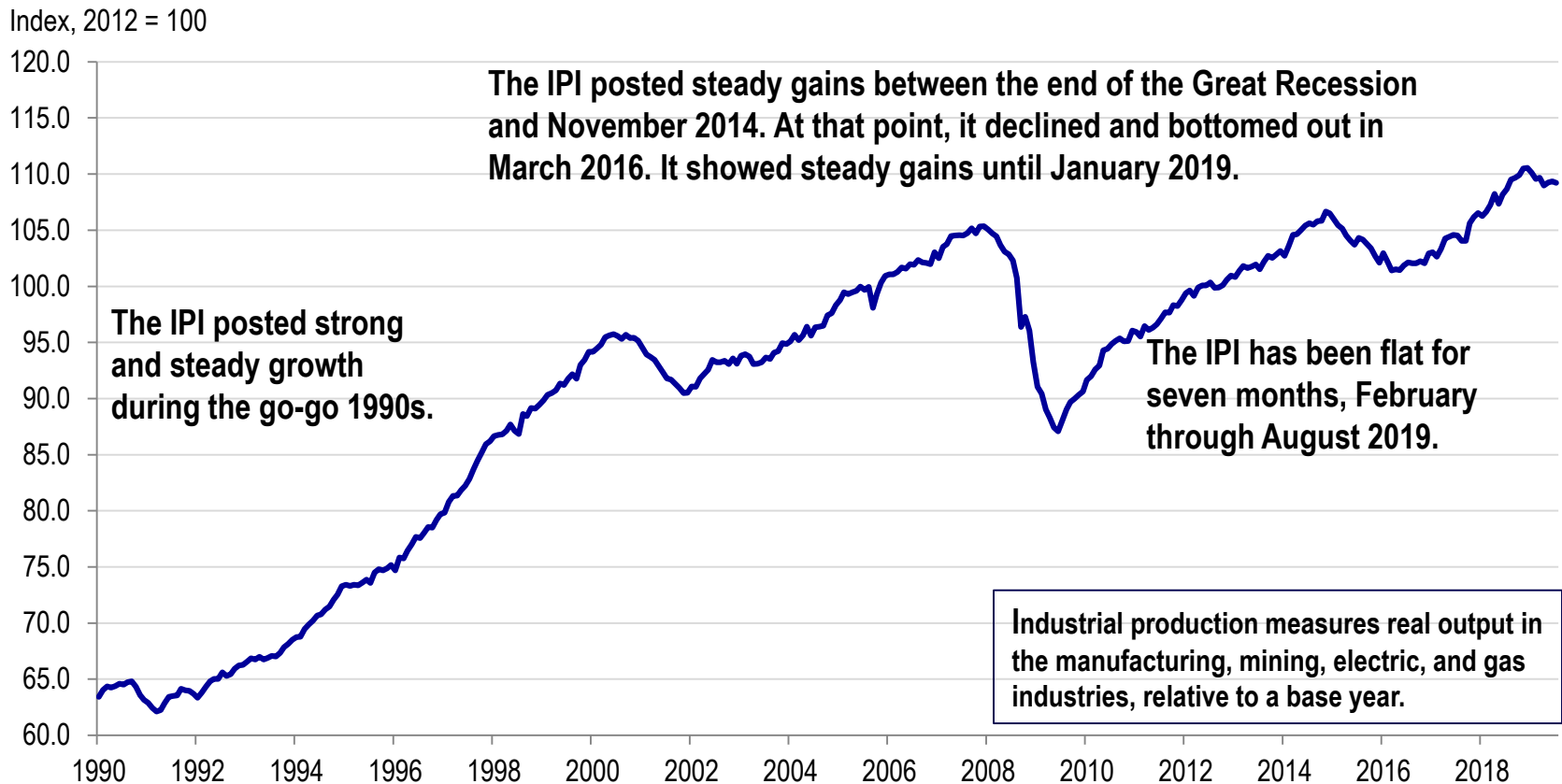
The U.S. Economy

Industrial Production and Capacity Utilization – All Industries

Industrial Production Index

All Industries

Industrial Production, All Industries



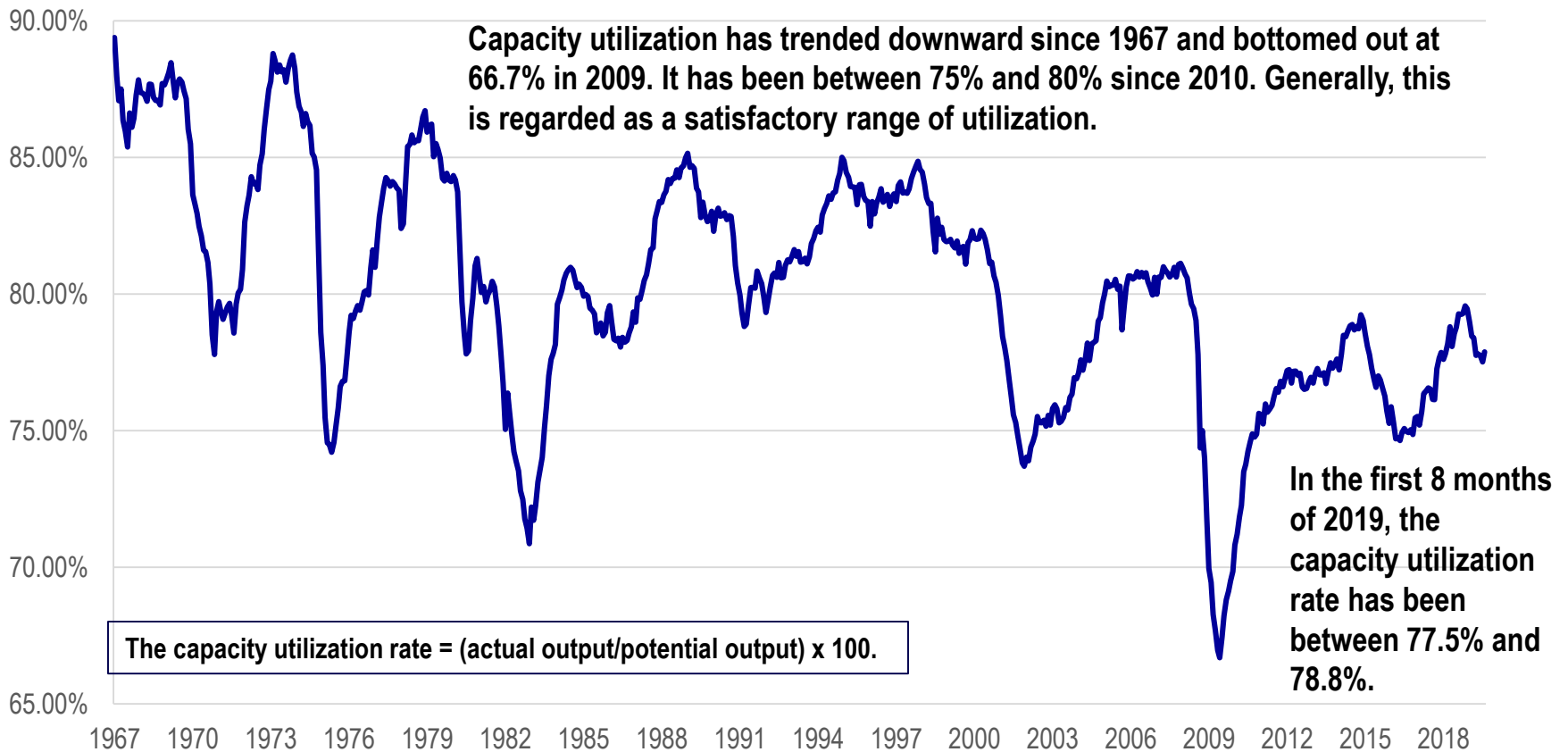
Source: FRED, Federal Reserve, cber.co.

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Capacity Utilization

Total Industry

Capacity Utilization



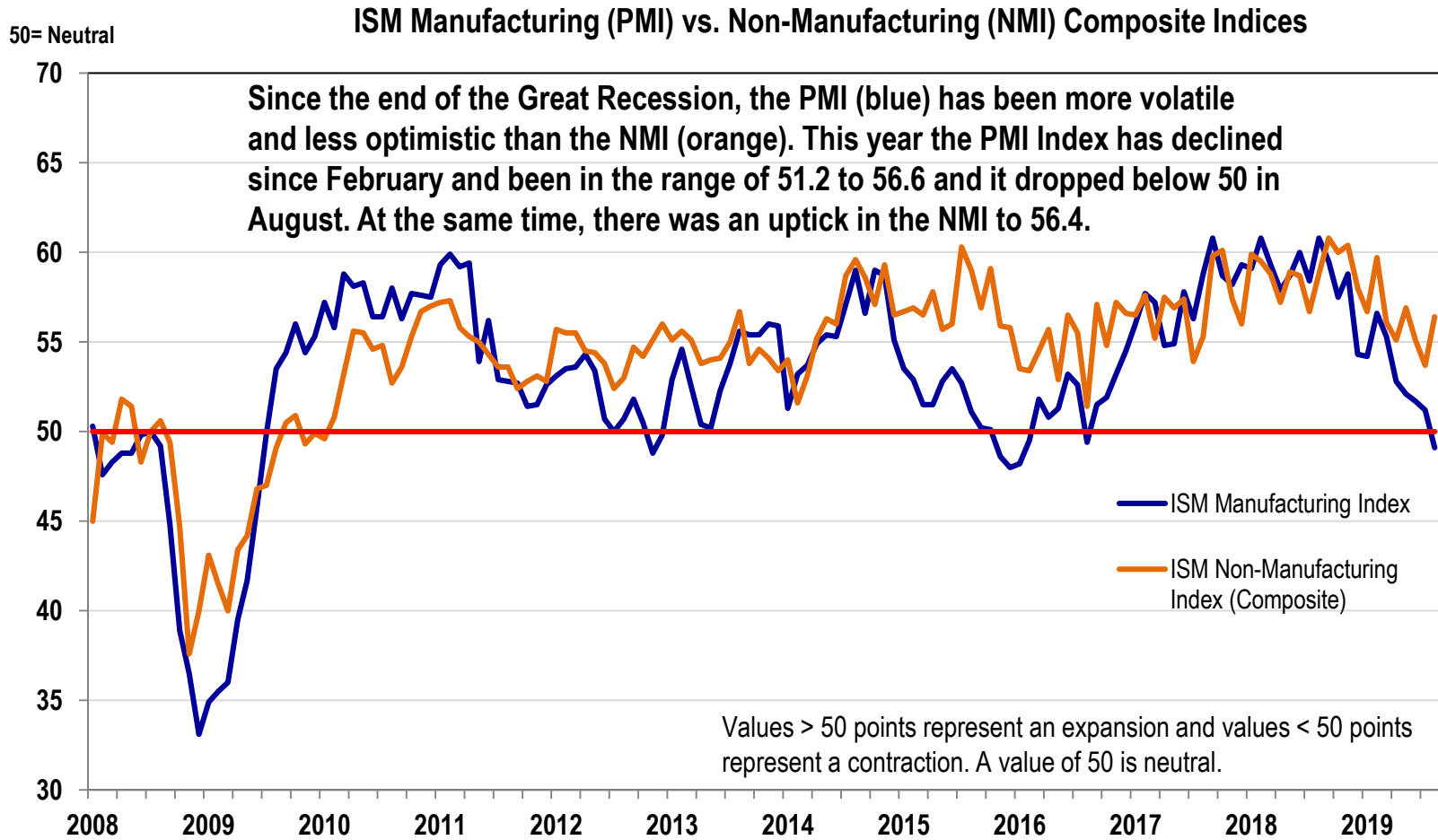


The U.S. Economy

Manufacturing and Nonmanufacturing Indices, Manufacturing Shipments, Manufacturing Employment, PBS Employment, Real Exports of Goods and Services

ISM PMI Composite Indices

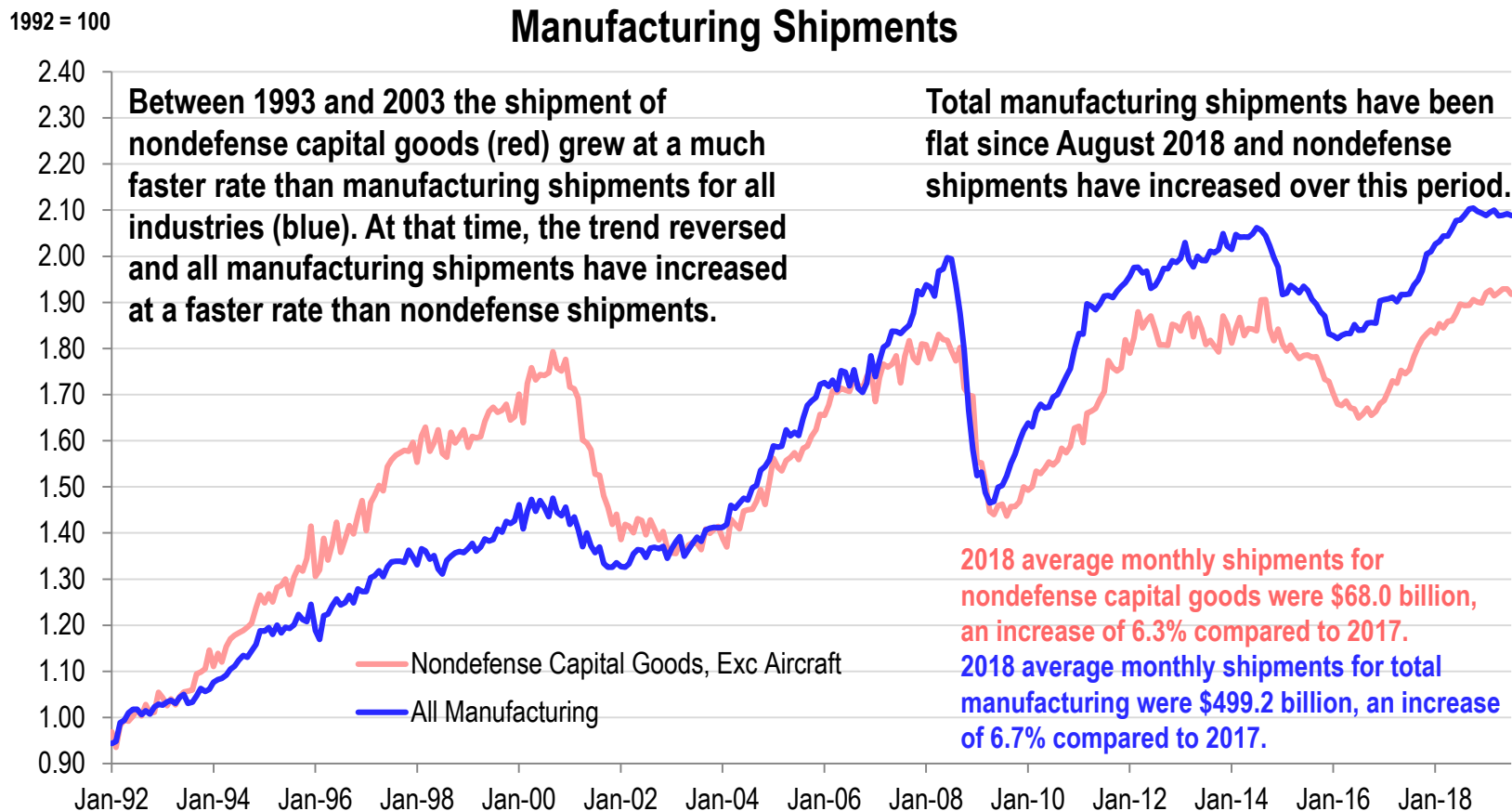
Manufacturing vs. Non-manufacturing



Sources: Institute for Supply Management (ISM), FRED, cber.co.

United States Manufacturing Shipments

All Industries vs. Nondefense Capital, Excluding Aircraft

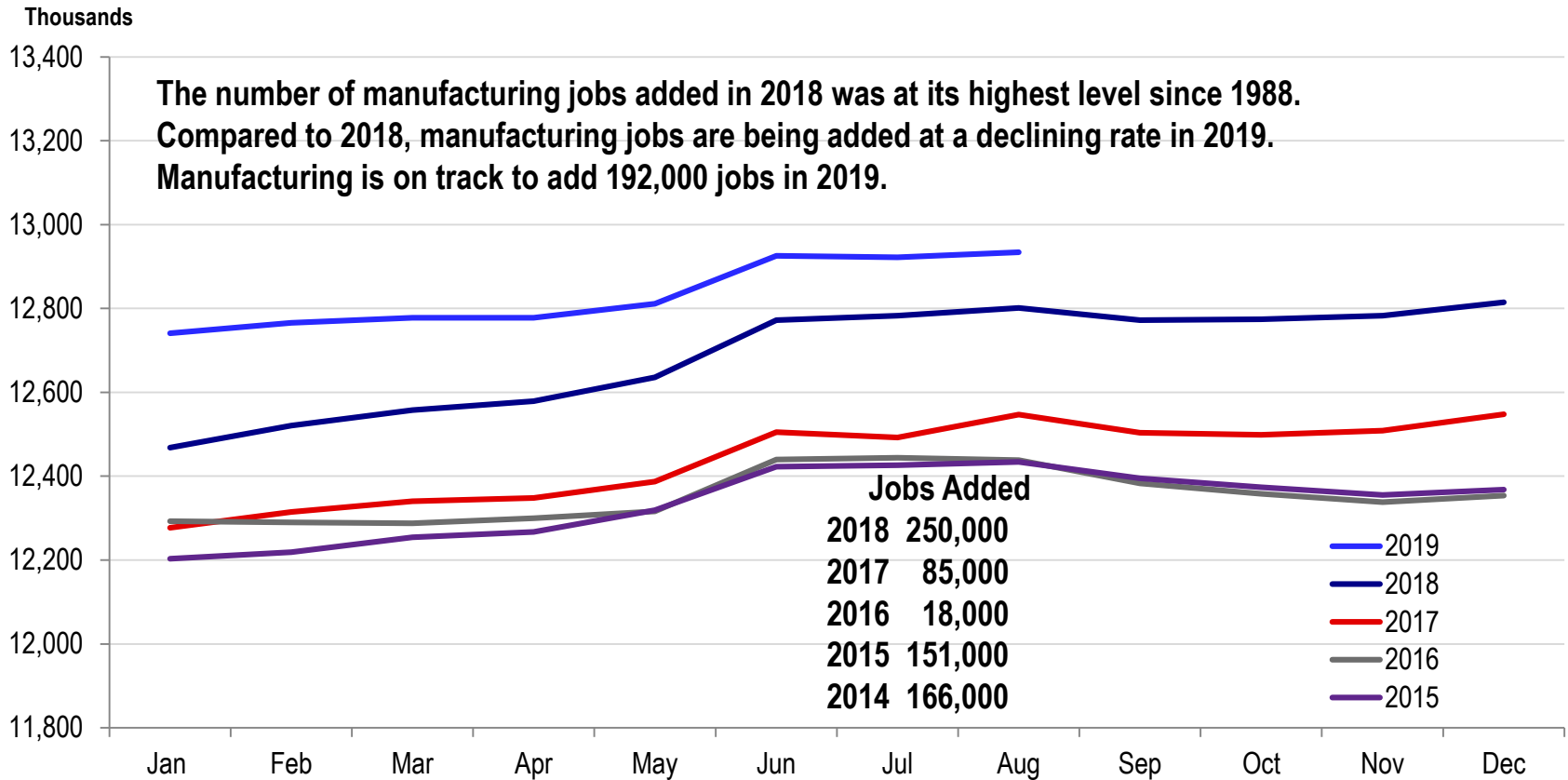


Source: FRED, SA. U.S. Bureau of the Census, cber.co. Note: Not adjusted for inflation.

U.S. Manufacturing Employment

2015 to 2019

U.S. Manufacturing Employment



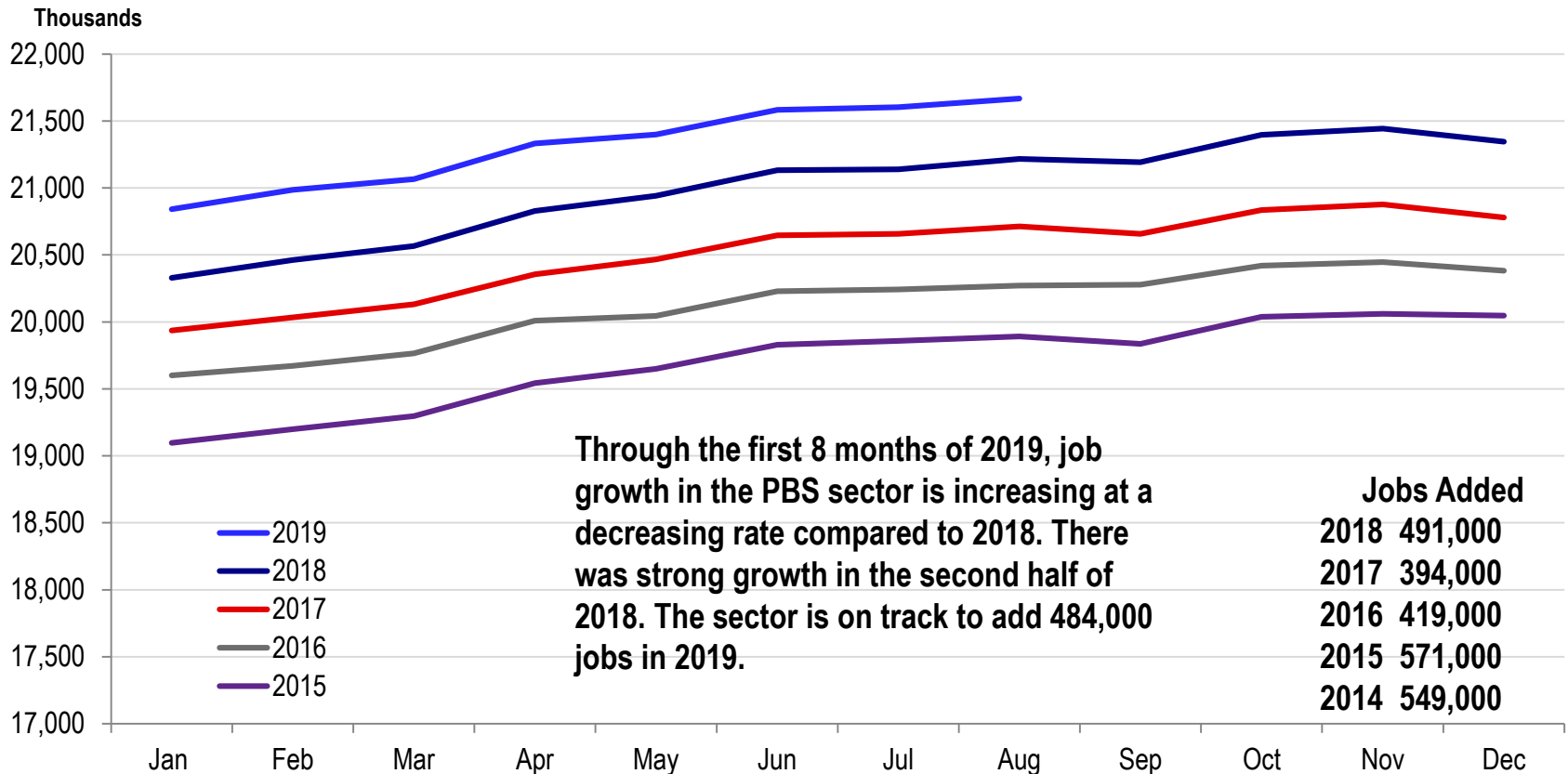
Source: BLS, cber.co.

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U.S. Professional Business Services

2015 to 2019

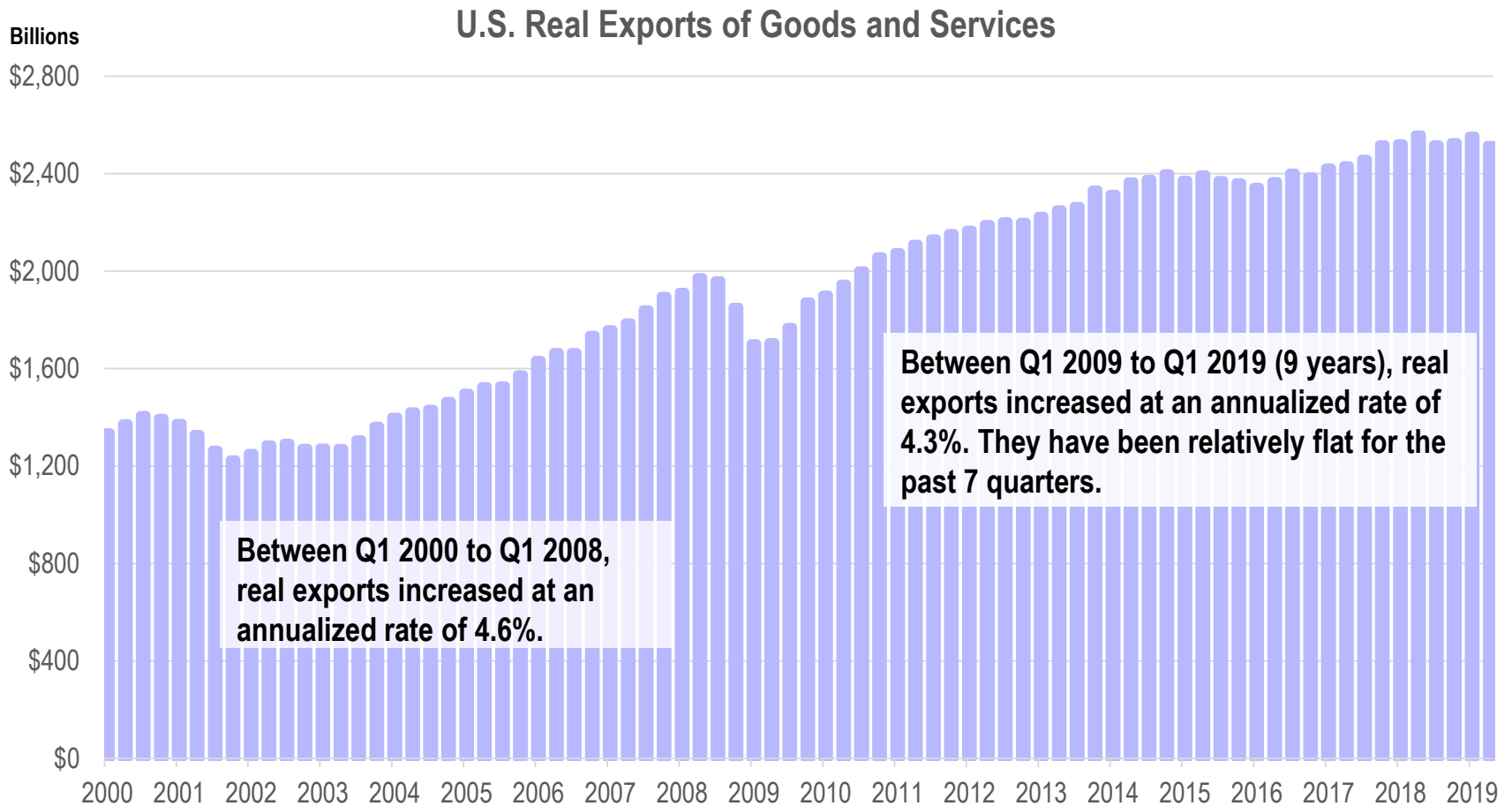
U.S. PBS Employment



Source: BLS, cber.co.

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Real Exports of U.S. Goods and Services



Source: FRED, BEA, EXPGSC1, SAAR, cber.co. Note: Chained on 2012.

Real Net Exports of U.S. Goods and Services



Source: FRED, BEA, NETEXC, SAAR, cber.co Note: Chained on 2012.

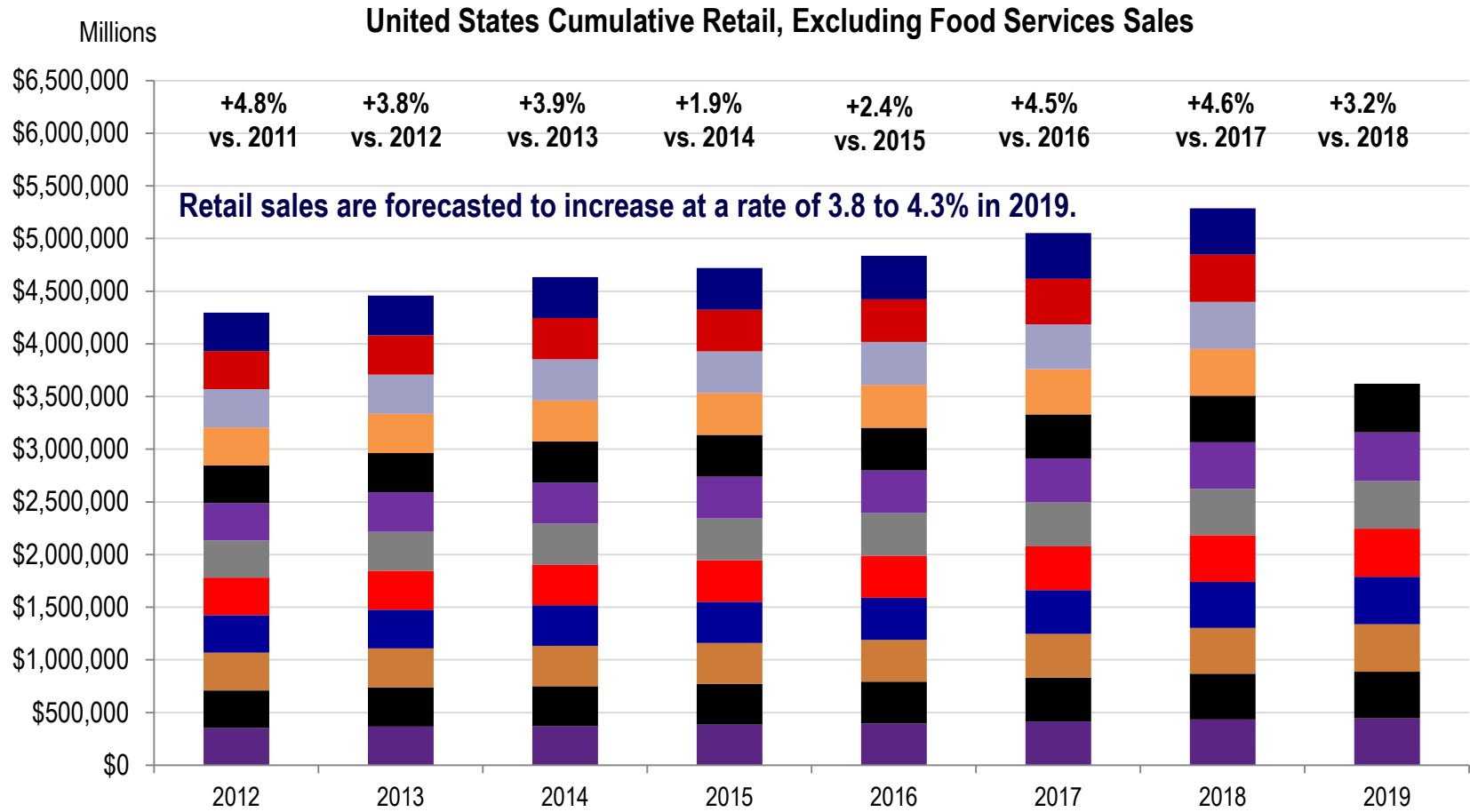


The U.S. Economy

Retail Sales and Auto Sales

Cumulative Retail, Excluding Food Services Sales

Monthly

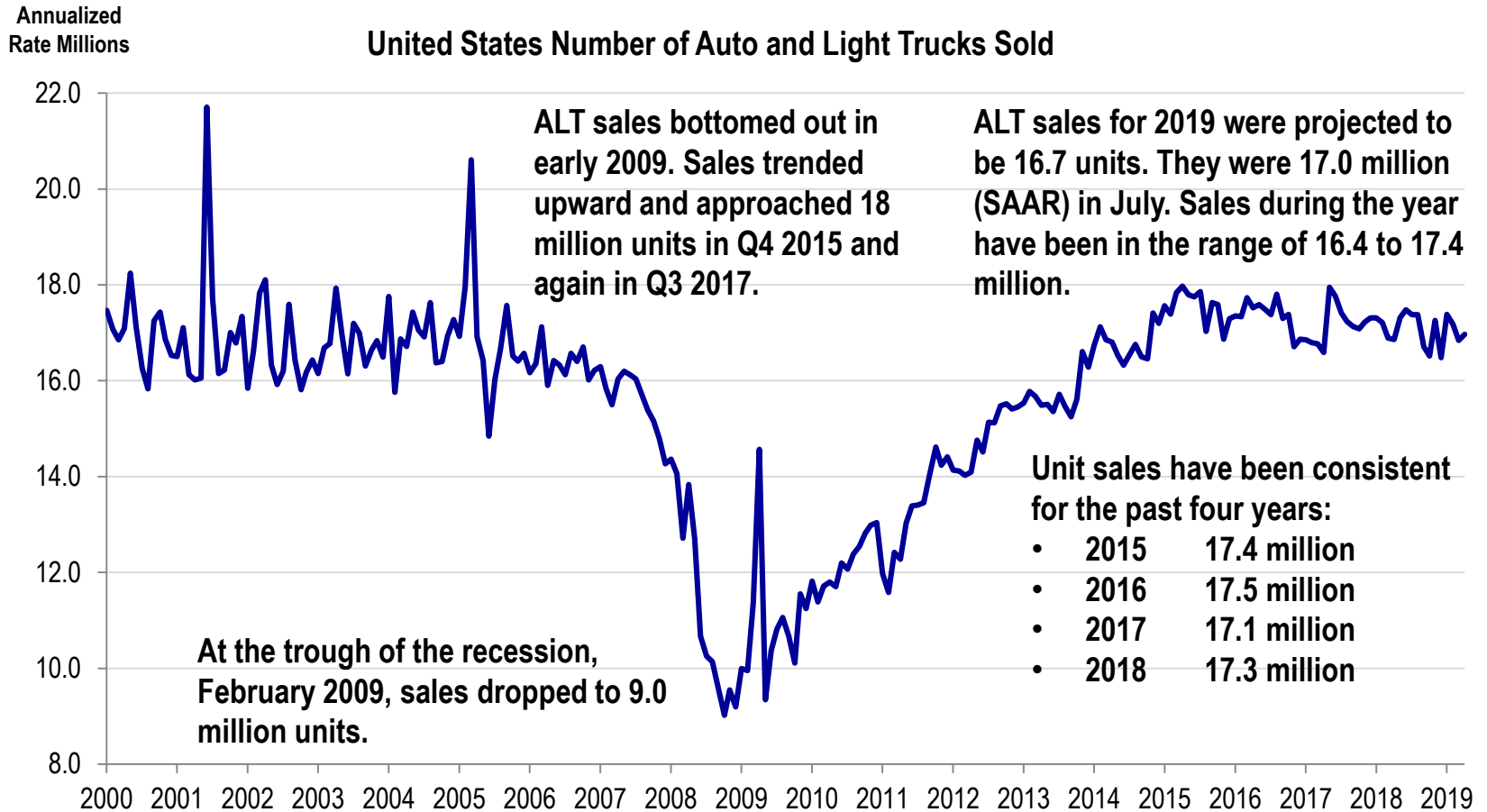


Source: U.S. Census Bureau, FRED, cber.co.

Note: Data is in descending order with December at the top and January at the bottom, not adjusted for inflation.

U.S. Auto and Light Truck (ALT) Sales

Monthly (Annualized Rate Millions)



Source: FRED, BEA, SAAR, cber.co.

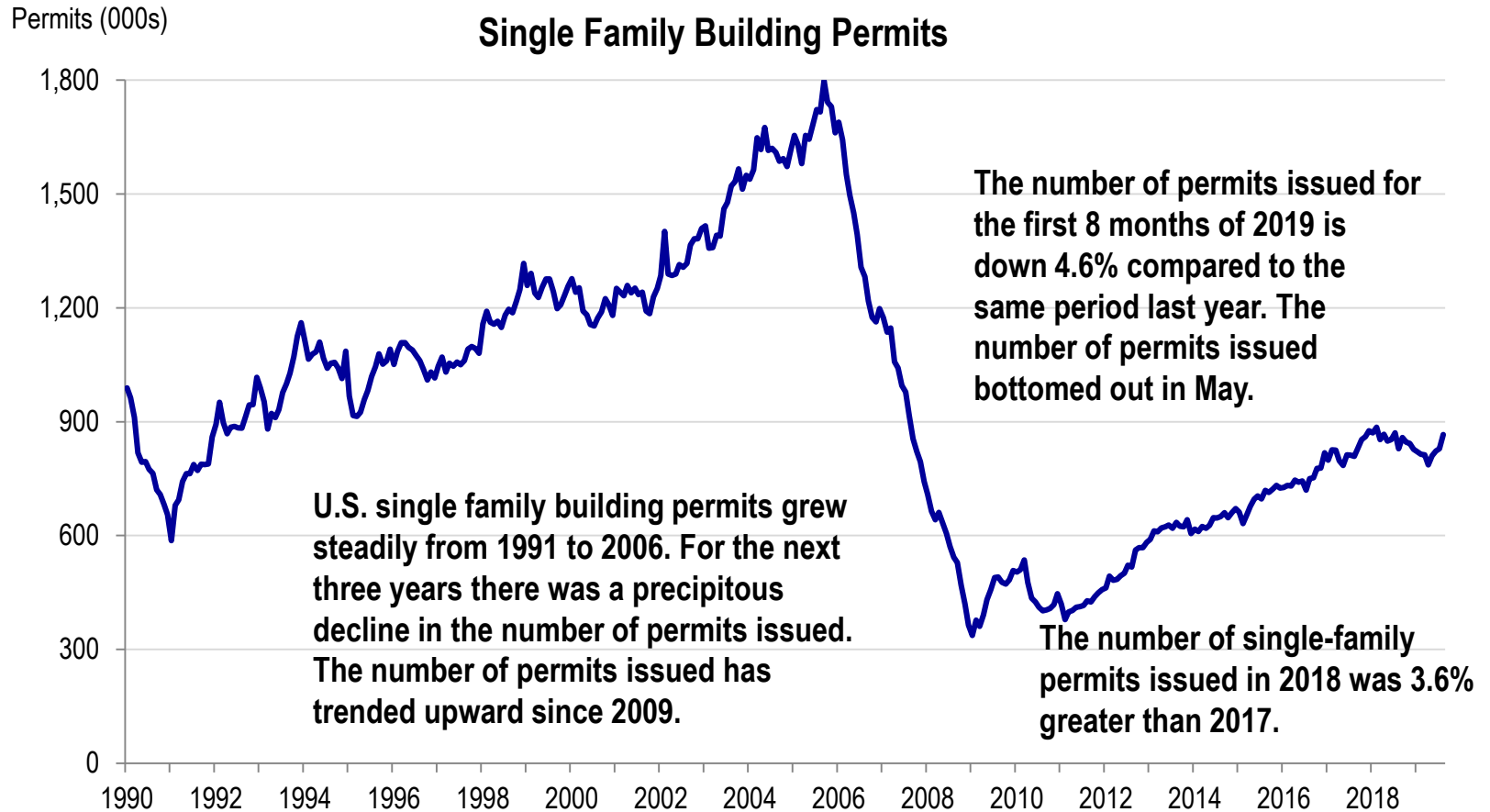


The U.S. Economy

Single Family Permits, Construction Spending, Construction Employment, 30-Year Fixed Rate Mortgages, NAHB HMI and Housing Starts, and Case Shiller Home Price Index

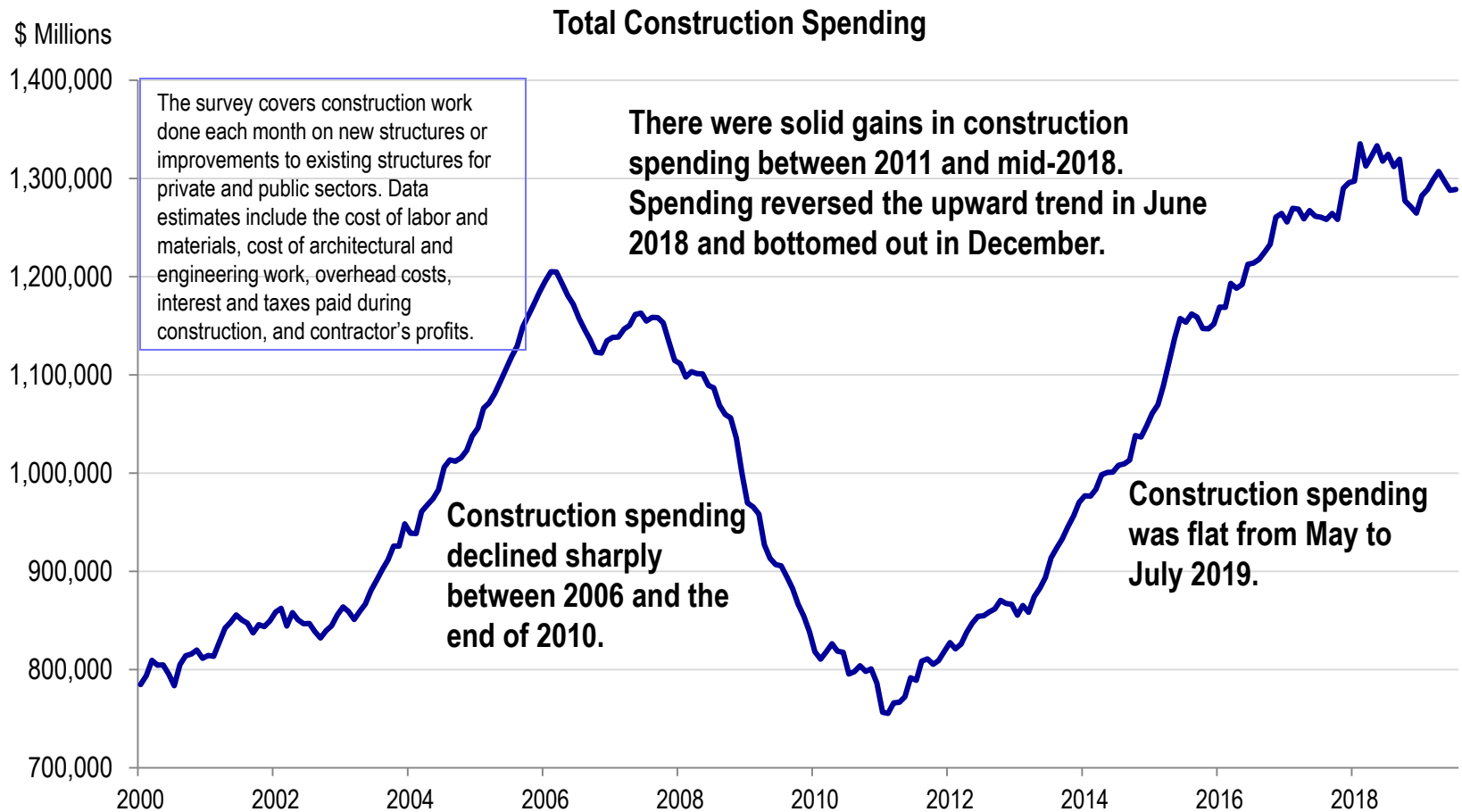
New Single-Family Building Permits

United States



Source: FRED, U.S. Census Bureau, cber.co.

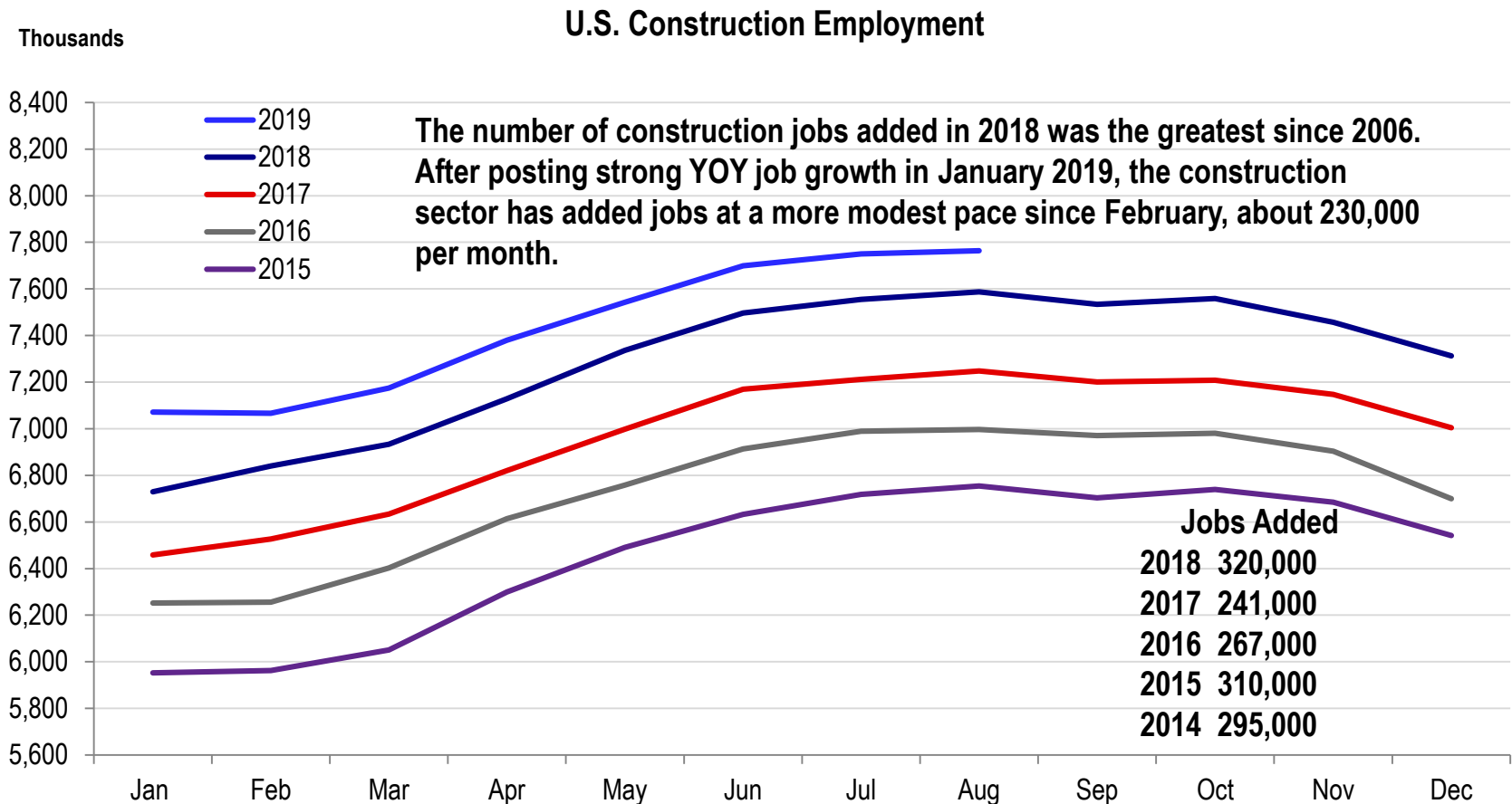
Total U.S. Construction Spending



Source: FRED, Census Bureau, not adjusted for inflation, SAAR, cber.co.

U.S. Construction Employment

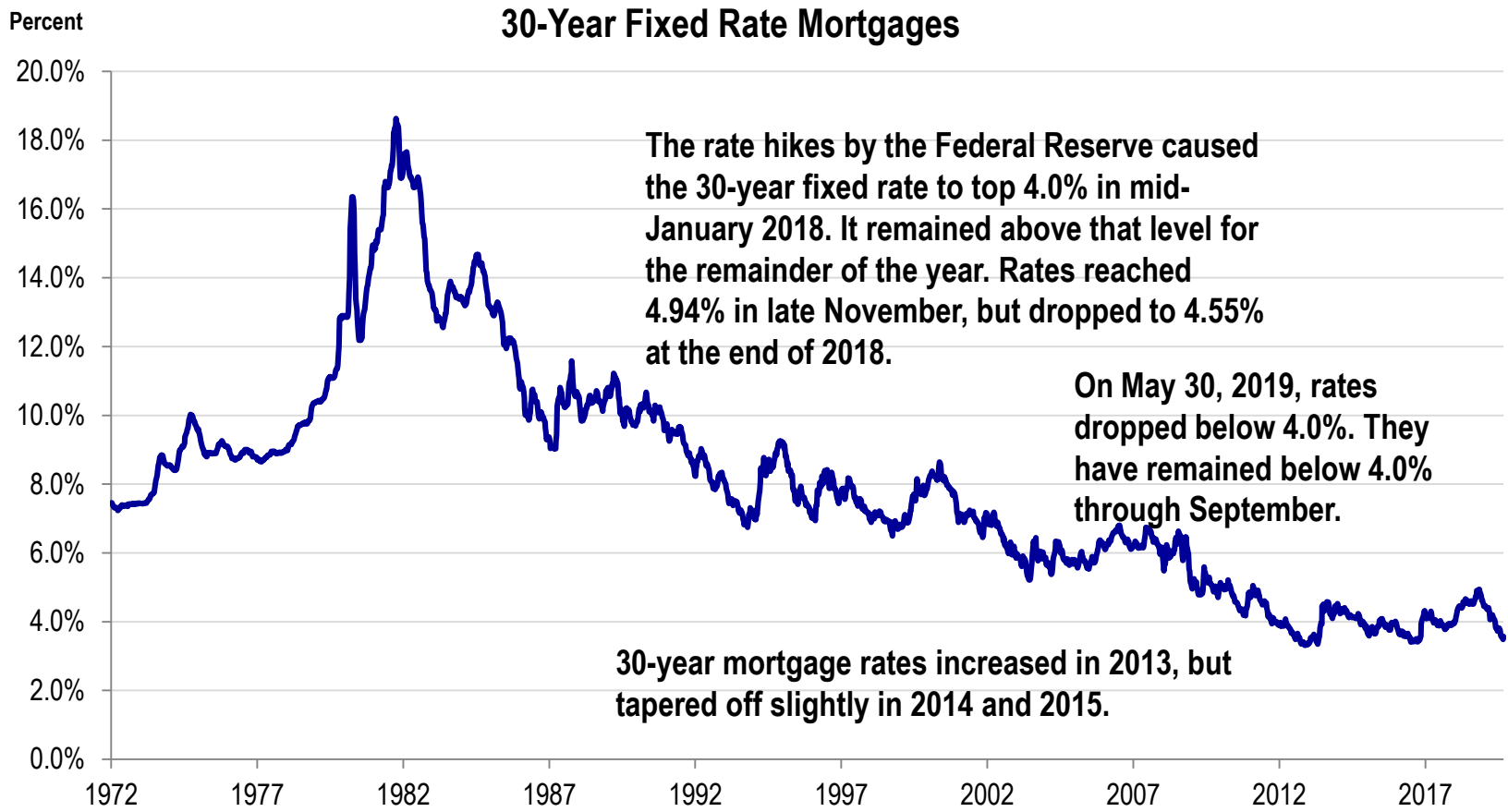
2015 to 2019



Source: BLS, cber.co.

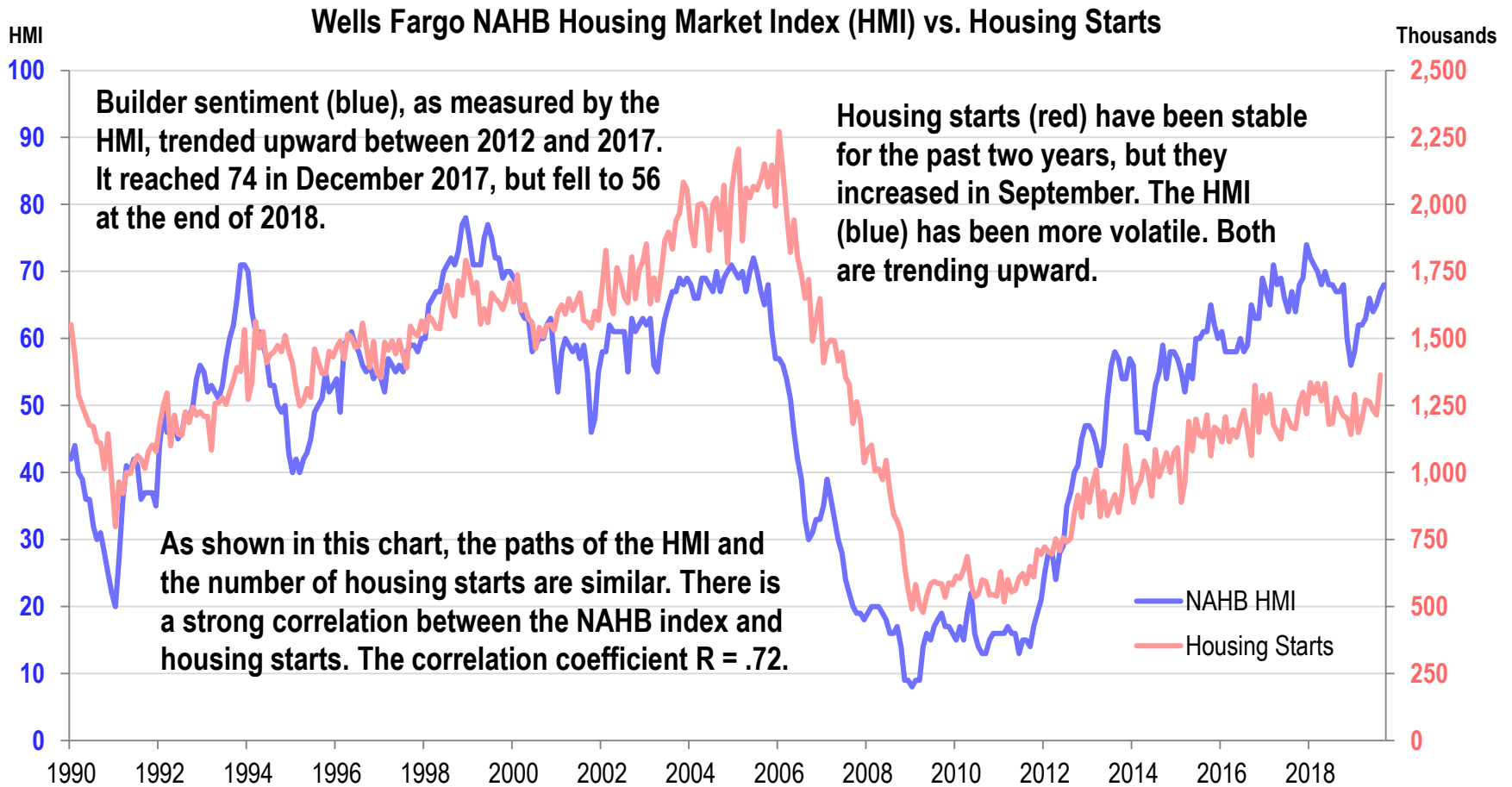
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30-Year Fixed Rate Mortgages



Source: FRED, Freddie MAC, cber.co.

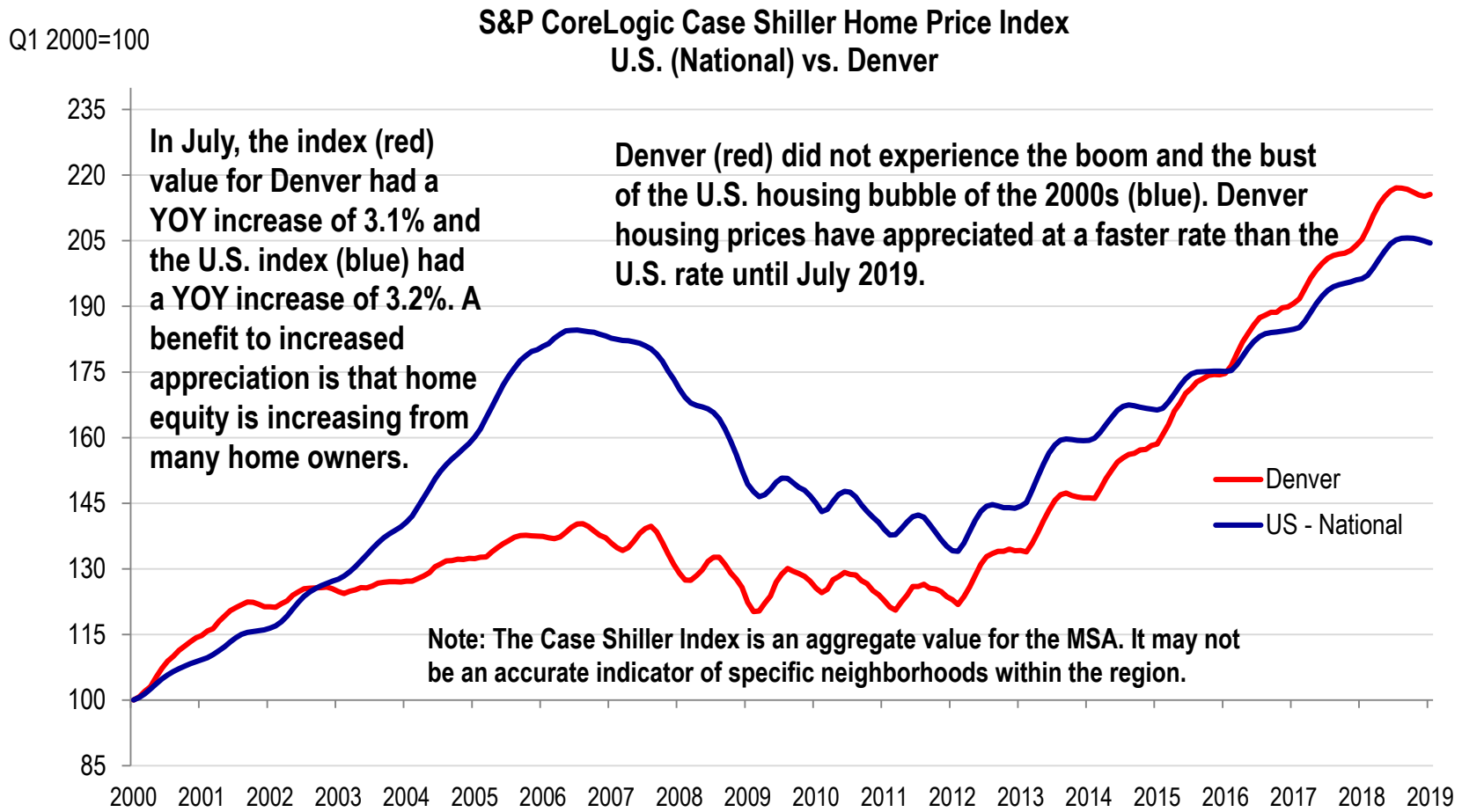
Wells Fargo NAHB HMI vs. Housing Starts



Source: NAHB, cber.co.

Case Shiller Home Price Index

National vs. Denver Index Value



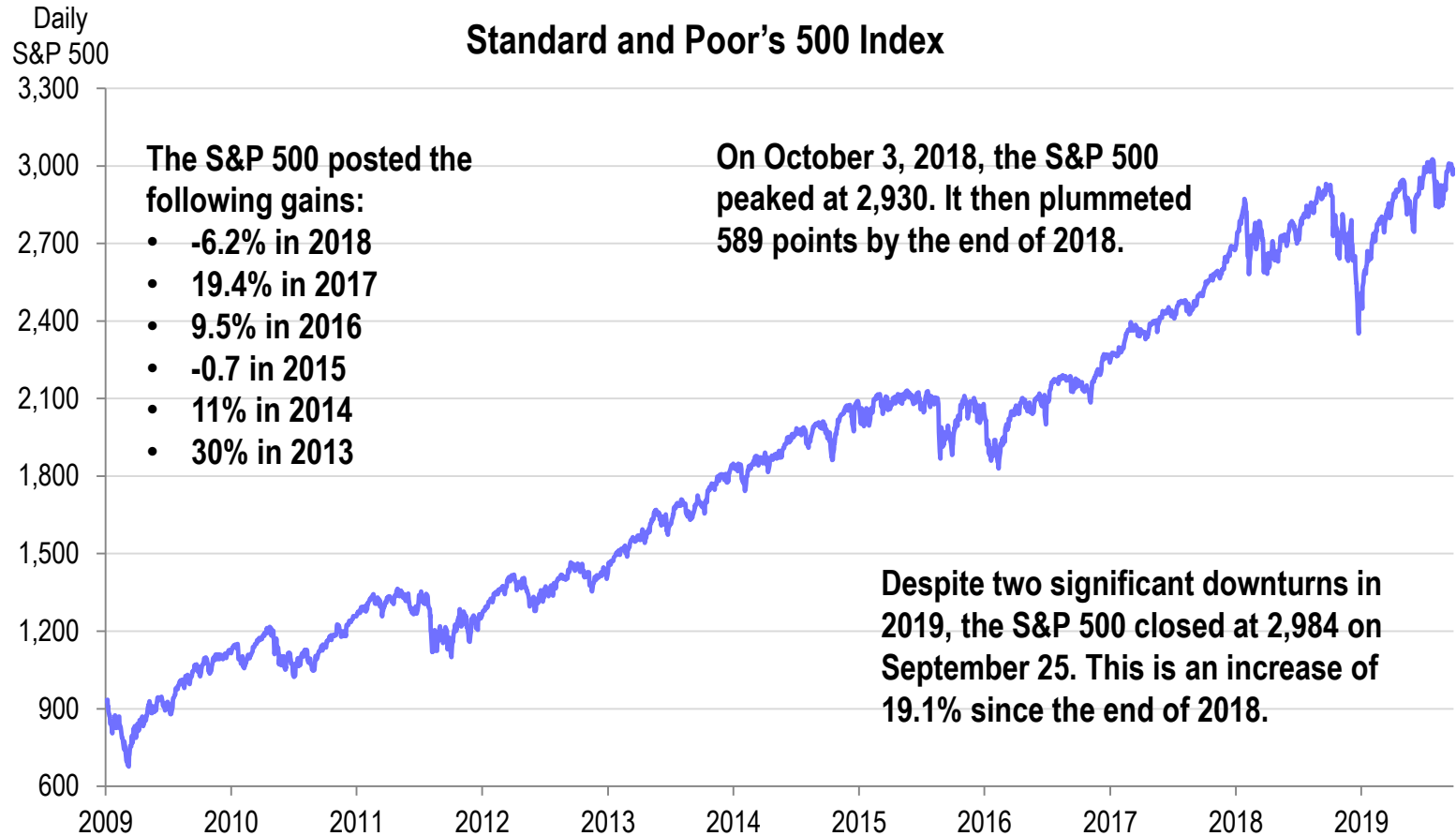
Source: S&P Core-Logic Case-Shiller, cber.co.



United States Economy

S&P Performance, Volatility, Historical S&P Performance

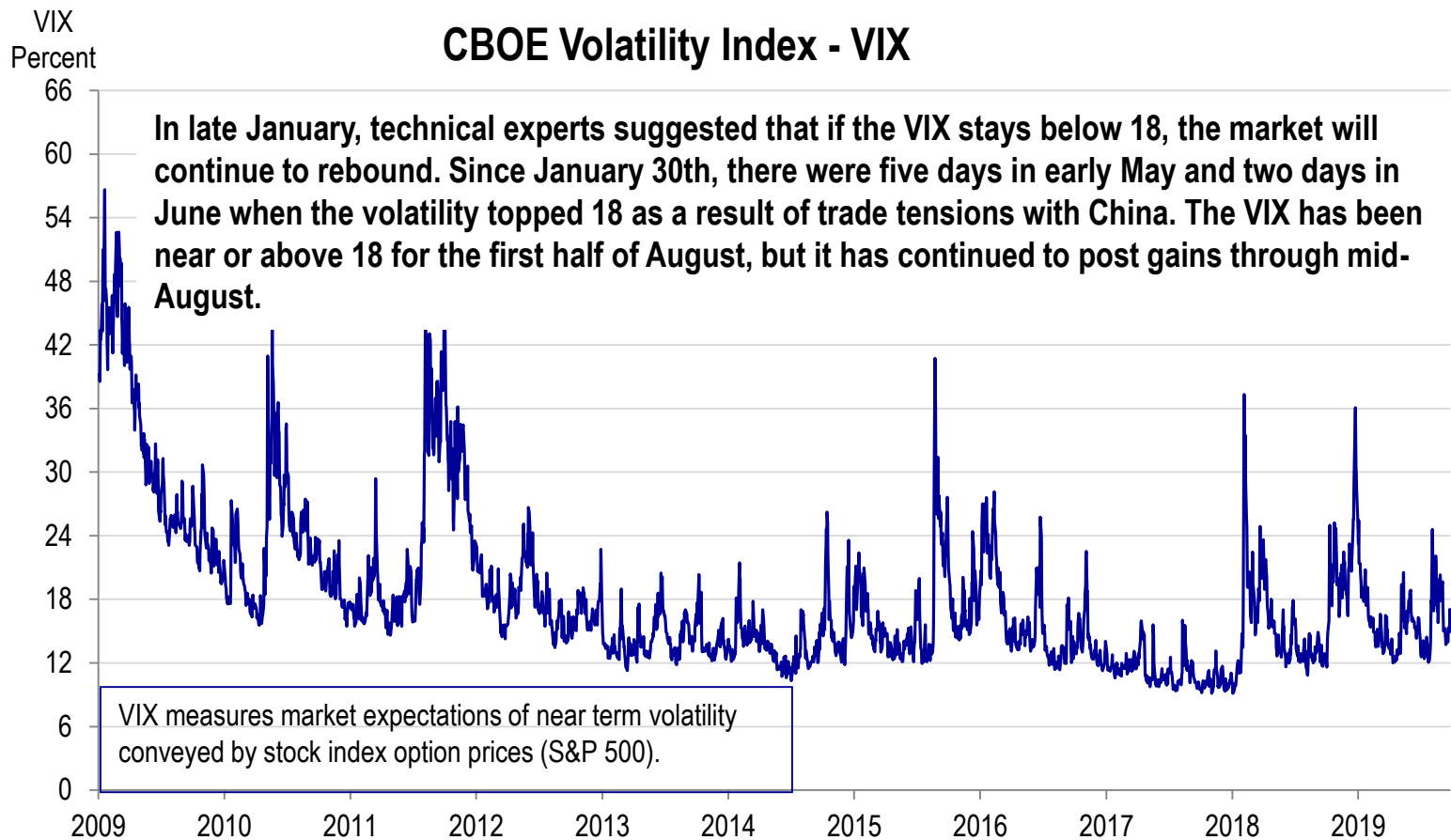
● Standard and Poor's 500 Index



Source: FRED, S&P 500, cber.co.

CBOE Volatility Index

VIX (VIXCLS)



Source: FRED, Chicago Board Options Exchange, cber.co.

Equity Market Volatility

The markets are likely to focus on the fundamentals more than they are the political turmoil in Washington, D.C. and elsewhere.



The U.S. Economy

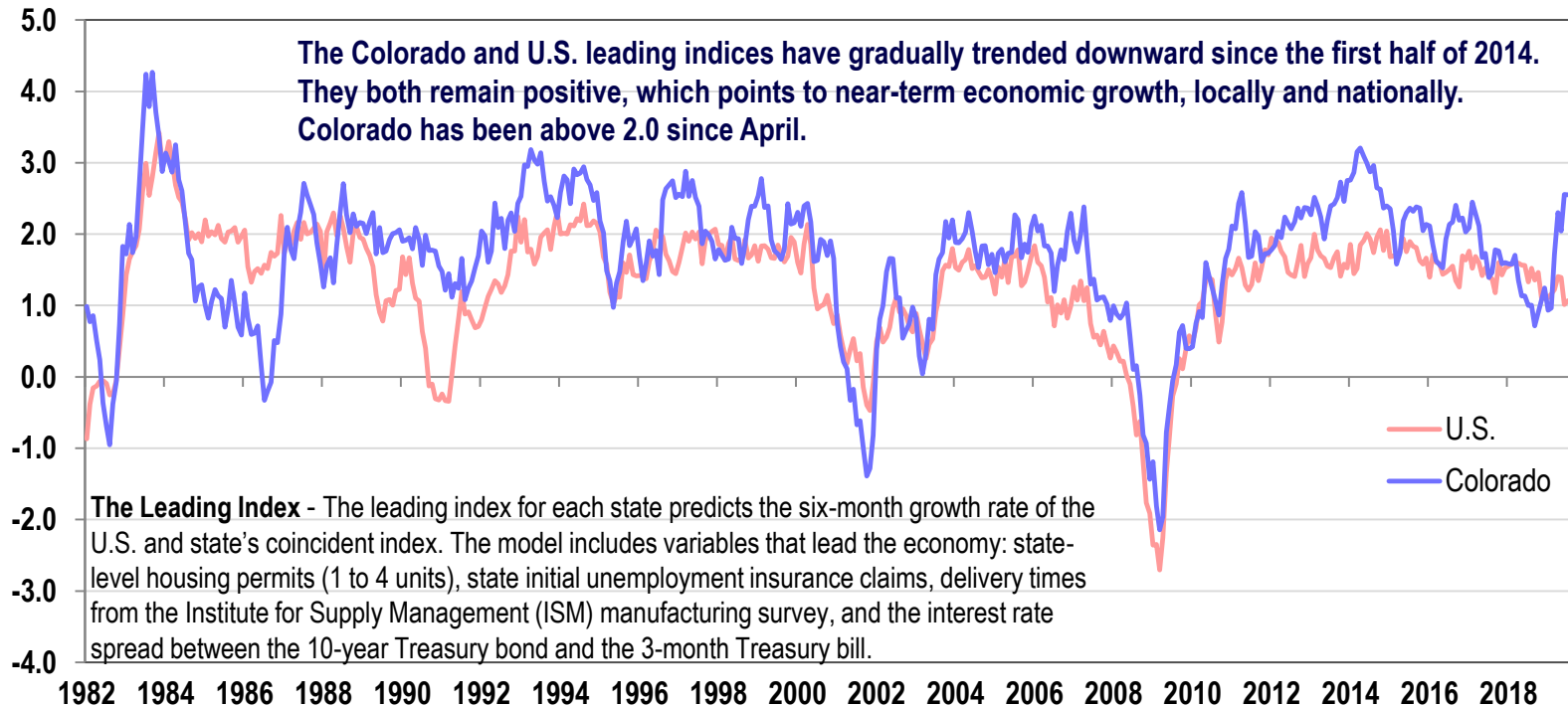
Federal Reserve Leading Indicator, NFIB Index, Michigan Consumer Sentiment

Philadelphia Fed Leading Index

Colorado vs. U.S.

Philadelphia Federal Reserve Leading Index – Colorado and U.S.

Index Value



Source: Philadelphia Federal Reserve, cber.co.

Colorado-based Business and Economic Research <http://cber.co>



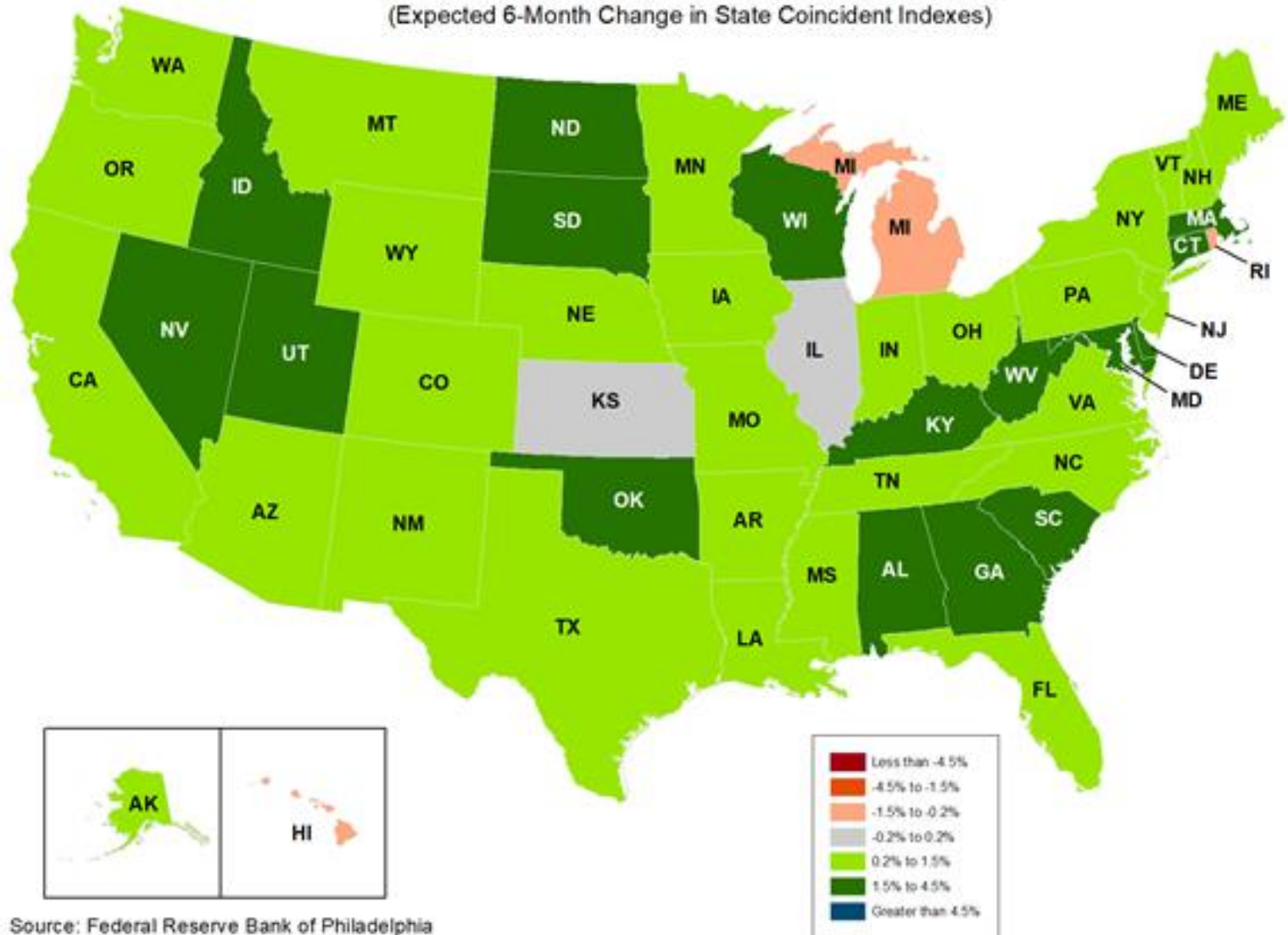
Philadelphia Fed Leading Index

June 2019 vs. December 2018

The following two maps compare the Leading Index for all 50 states for December 2018 and July 2019. The July 2019 Leading Index shows there has been overall improvement in the economy since the December 2018. There are concerns about the index for Michigan, Pennsylvania, Kentucky, Wyoming, Nevada, and Pennsylvania.

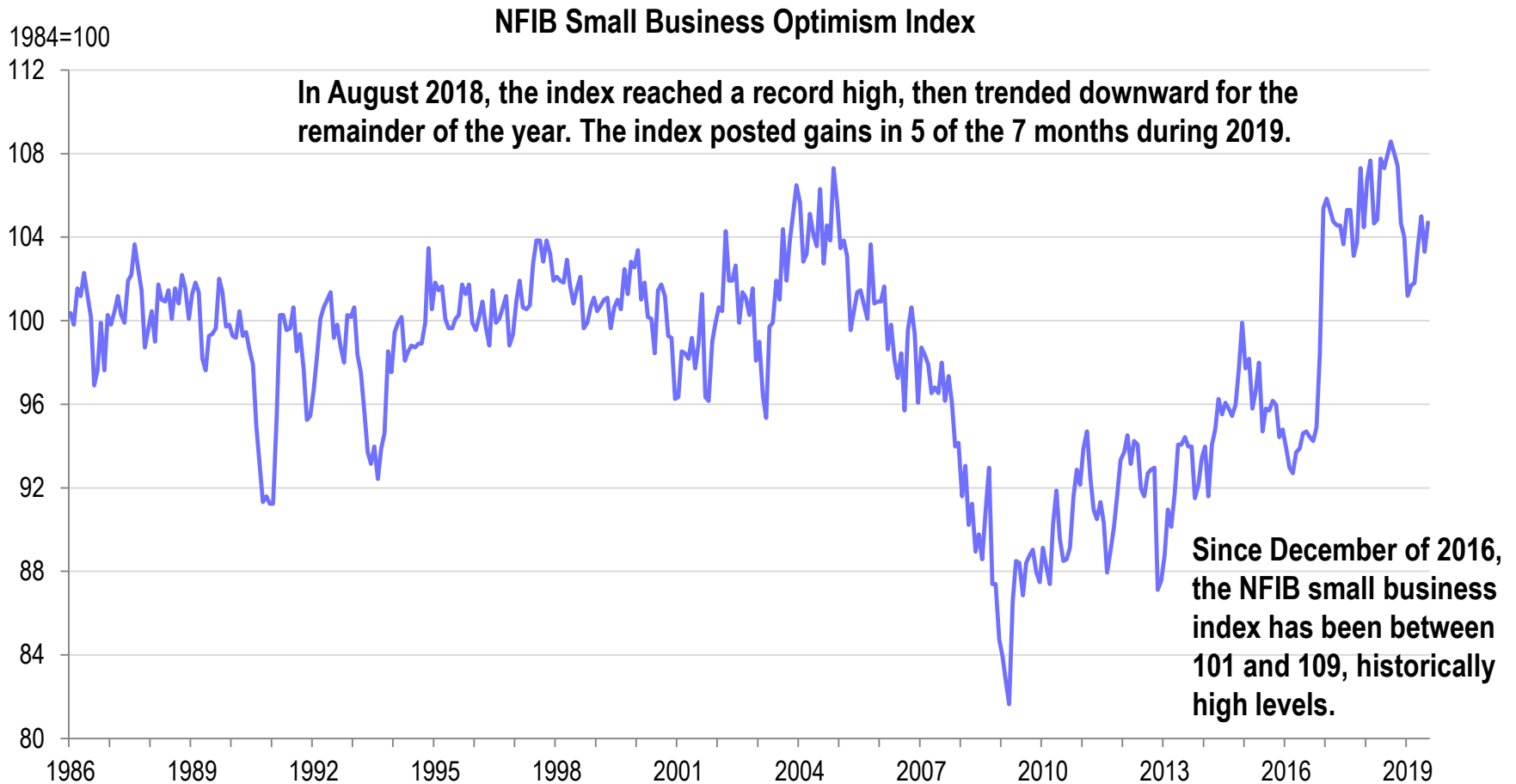
December 2018 State Leading Indexes

(Expected 6-Month Change in State Coincident Indexes)



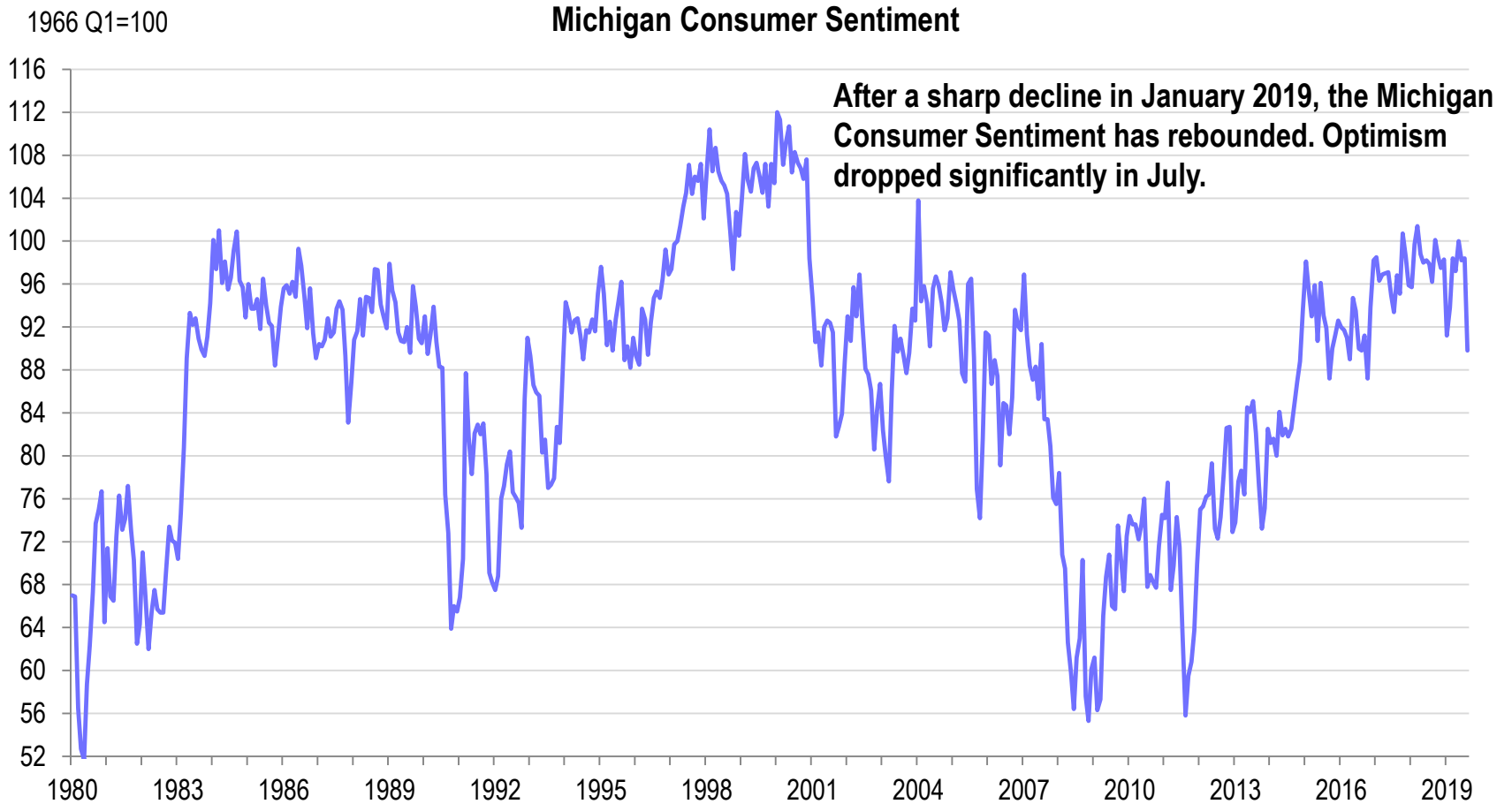
Source: Federal Reserve Bank of Philadelphia

NFIB Small Business Optimism Index



Source: NFIB, cber.co. Index 1984=100

University of Michigan Consumer Sentiment



Source: University of Michigan, cber.co.

Colorado-based Business and Economic Research <http://cber.co>

● Role of Confidence in the Performance ● of the Economy ●

“Confidence is contagious. So is lack of confidence.” Vince Lombardi

When consumers and business leaders are rightfully confident, they invest in the economy and it expands. When they lack confidence, they postpone, reduce, or eliminate investments in the economy and it may not expand.



The U.S. Economy

Summary



Summary

U.S. Economy

On a Positive Note

Solid-to-modest employment and real GDP growth is expected through the end of the year.

In addition, the Federal Reserve lowered interest rates to ensure that growth continues in the near-term. Additional rate cuts are expected as a precautionary measure.

There are Headwinds

In the months ahead, there will be overall slowing in the global economy that includes major countries in Asia, Europe, the Middle East, and Latin America. The slowdown and uncertainty in the global economy is unlikely to result in a recession in the U.S.

The Brexit situation in the UK and the trade tension with China present a unique set of challenges.

The U.S. labor market will remain tight. It will be difficult to find qualified workers, especially in critical occupations in the healthcare, education, and advanced technology sectors.

The gridlock in Washington D.C. will sidetrack the economic agenda, which will come back to haunt the country in the future.

A grayscale photograph of a dense forest. In the center, a waterfall cascades down a rocky ledge. The trees are tall and thin, filling the background and foreground. The overall scene is serene and natural.

The Colorado Economy



The Colorado Economy

The Colorado Population

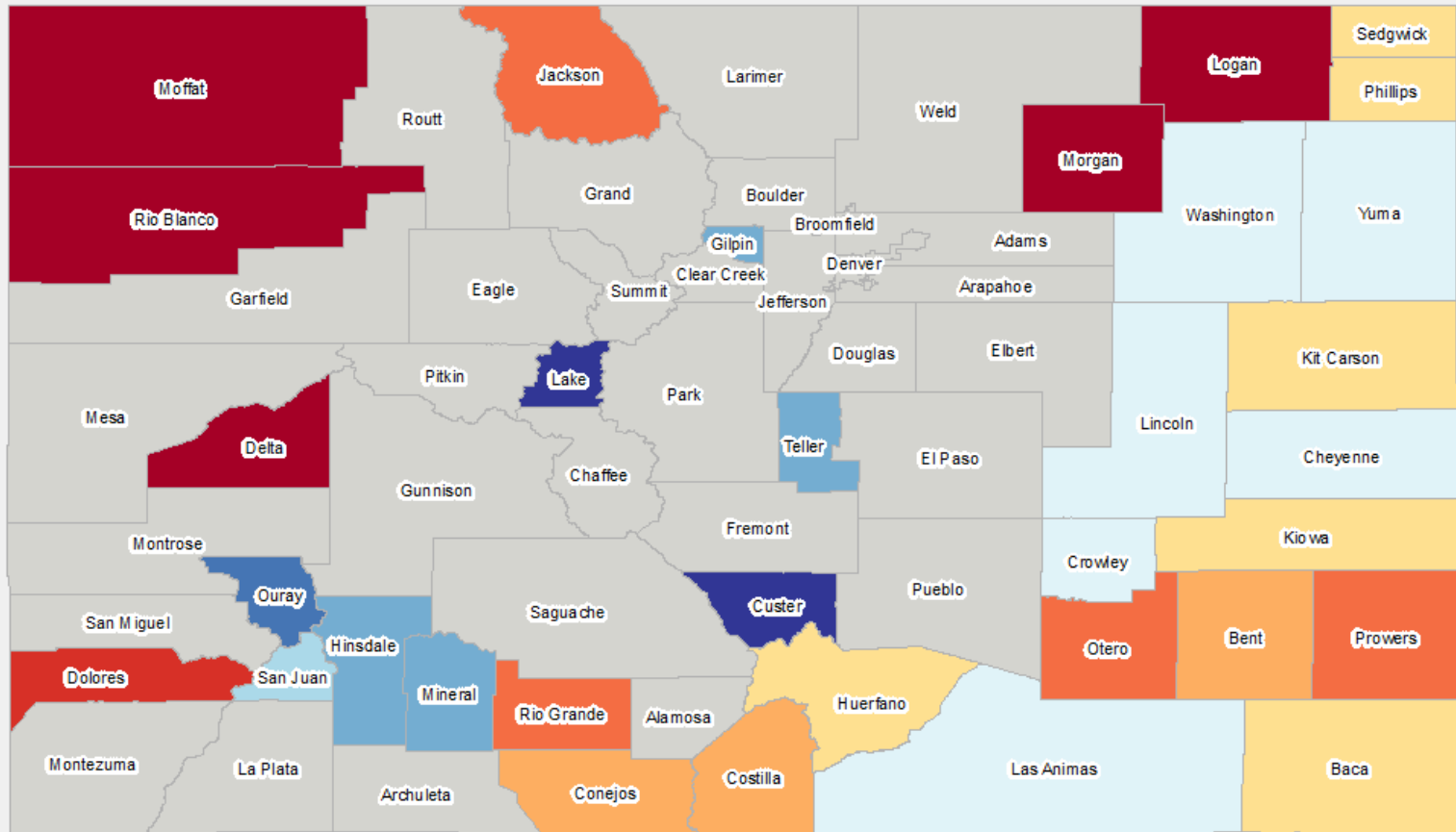
Colorado Population

The maps in this section are produced by the State Demographers Office. They illustrate changes in the population at the county level that affect economic growth. The state's population is not growing evenly across all counties. In fact, there was not growth in about half the counties between 2010 and 2018. The under 18 population declined in 40 of the state's 64 counties. The 65+ population is small, but it is growing across the state at different rates.

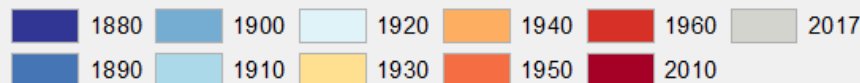
Key Points

- 31 counties had peak population in 2017, the latest year of data for the map.
- 5 counties had peak population in 2010.
- 28 counties had peak population in 1960 or before.
- Wages are less and job opportunities are fewer in rural counties. This affects K-12 education as 104 of 178 school districts have four-day school weeks. This is up from 39 in 2000. There are 80,000 students in this category and most districts are in rural Colorado.

Colorado County Population Peaks



Peak Census Population Year



31 counties peak population in 2017.
 5 counties peak population in 2010.
 28 counties peak population in 1960 or before.



Colorado Population

18 and Under Population

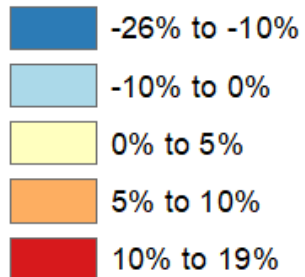
The decrease in fertility rates can have a significant impact on the growth of smaller communities.

Key Points

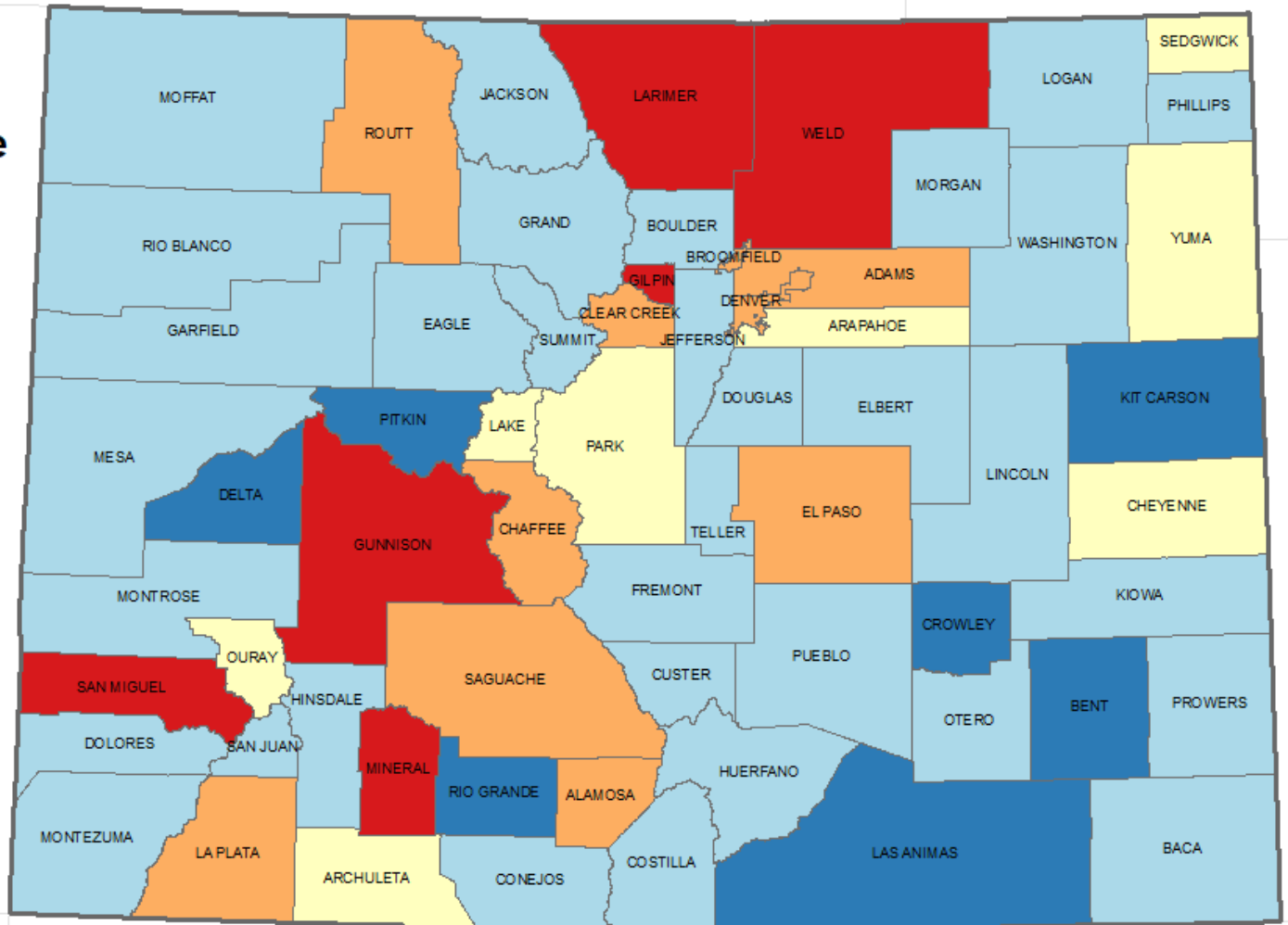
- 40 counties have shown a decline in the size of its 18 and under population between 2010 and 2018, 8 have shown moderate increases, and 16 have shown large increases.
- This has a significant impact on the future of small communities, their local governments, and school systems.

Colorado: Percent Population Change Under 18 2010 - 2018

Percent Change



7 counties -10% to -26%
33 counties 0% to -10%
8 counties 0% to 5%
10 counties 5% to 10%
6 counties 10% to 19%





Colorado Population

65+ Population

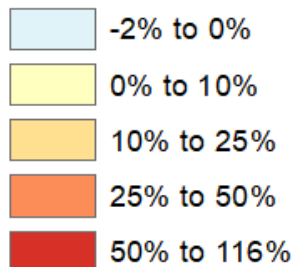
The state's population is aging and that is changing the way businesses and governments provide services.

Key Points

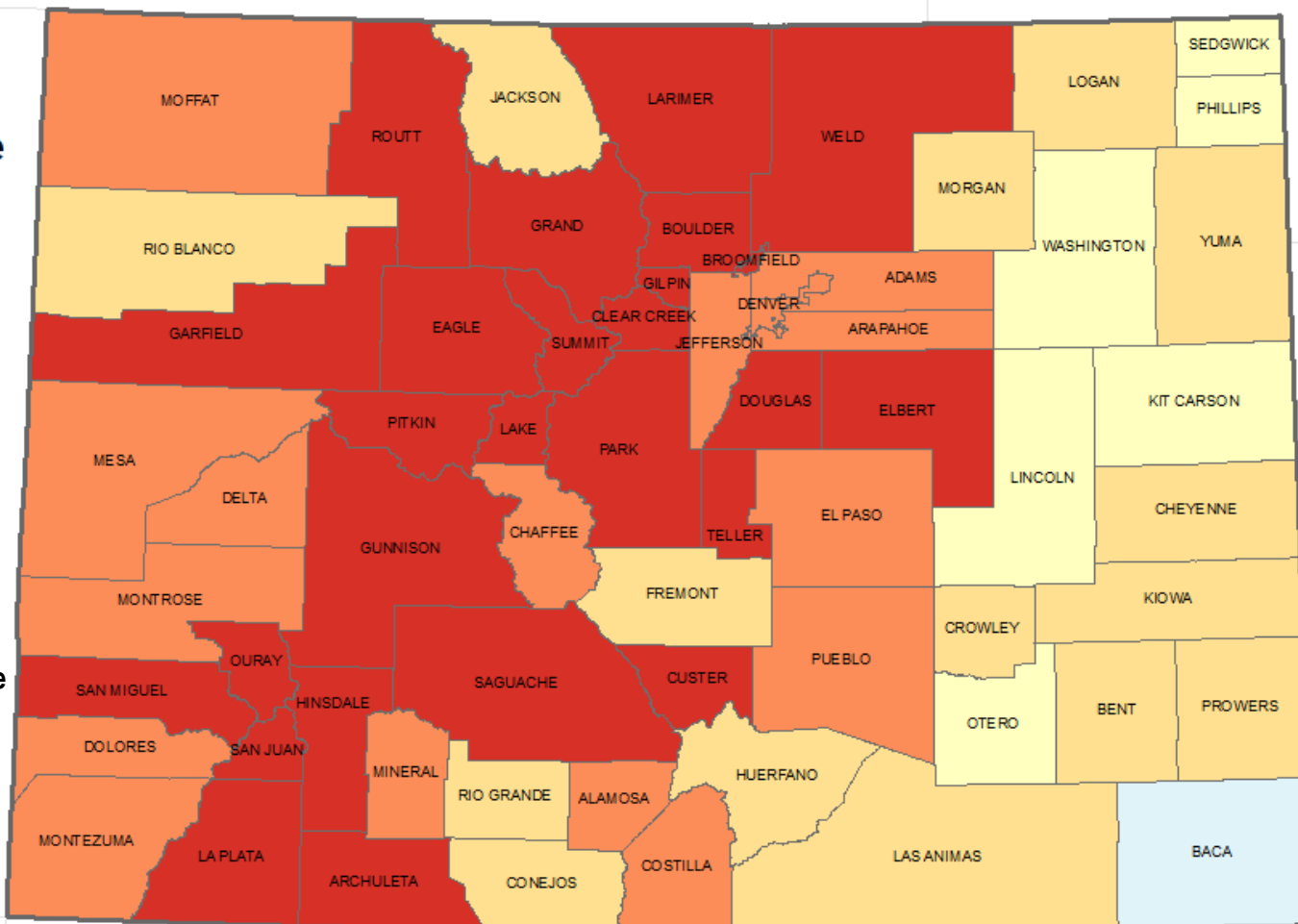
- Boomers are increasing everywhere except Baca County.
- Boomers are aging and they have different needs and spending patterns. They spend more on services and travel and less on goods that generate taxes.

Colorado: Percent Population Change Over 65 2010 - 2018

Percent Change



1 county < 0%
 6 counties 0% to 10%
 14 counties 10% to 25%
 17 counties 25% to 50%
 26 counties 50% or more



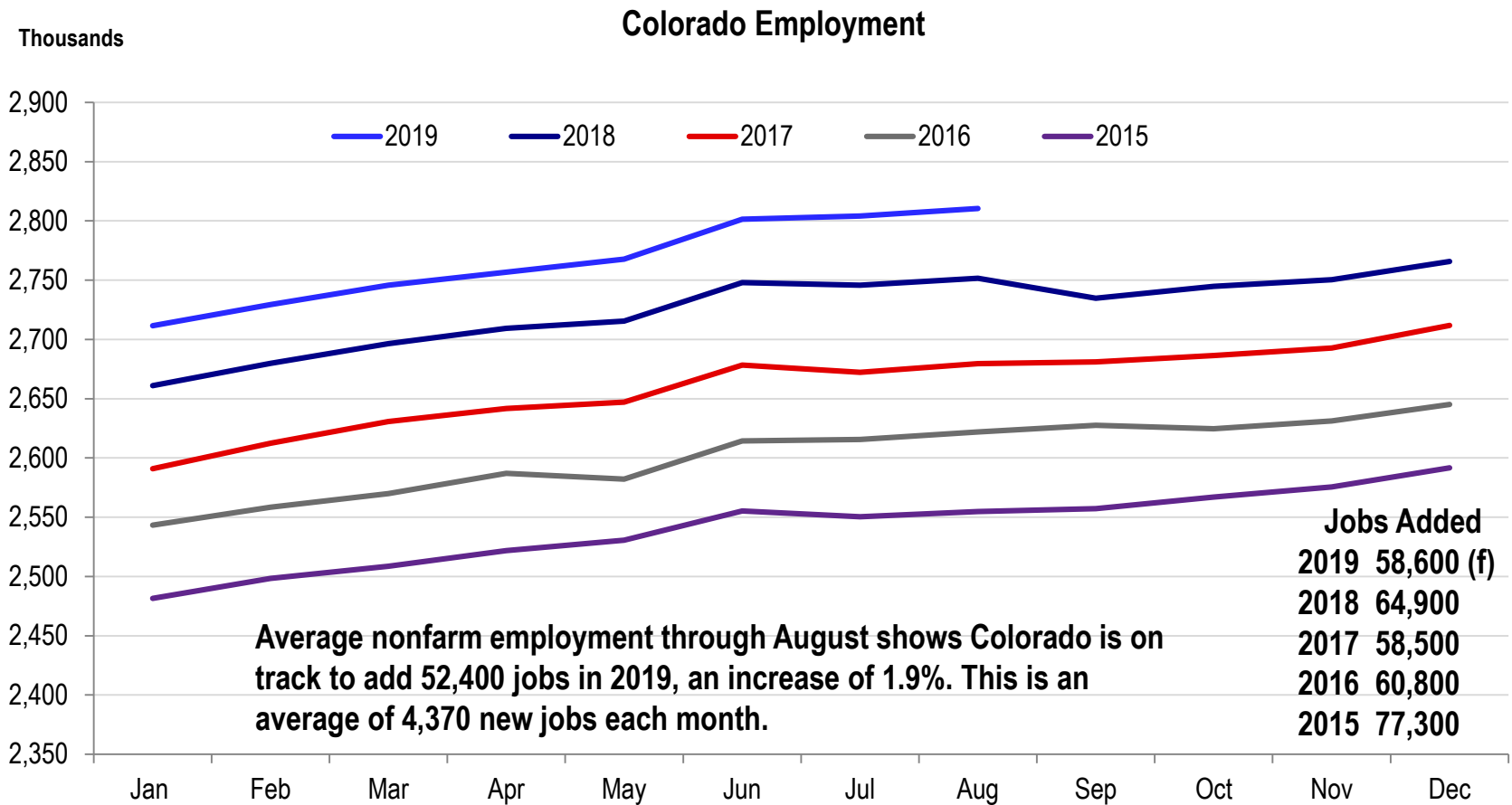


The Colorado Economy

Employment, Percent Change in Employment, and Occupations

Colorado Employment

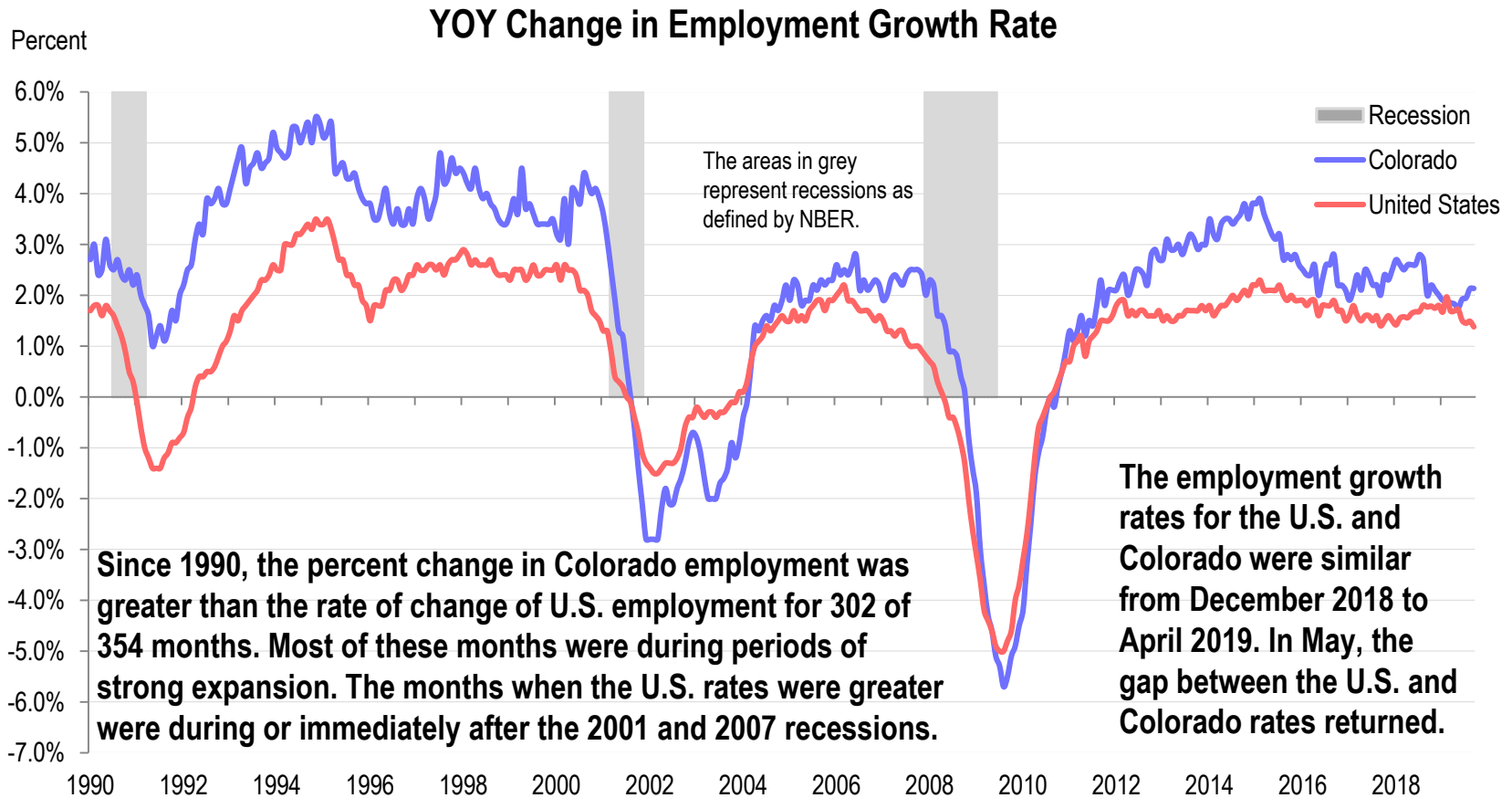
2015 to 2019



Source: BLS, cber.co. Note: CES Employment is also referred to as nonfarm wage and salary employment.

YOY Percent Change in Employment

Colorado vs. U.S.



Source: Bureau of Labor Statistics, NSA, NBER, cber.co.



Colorado Occupations

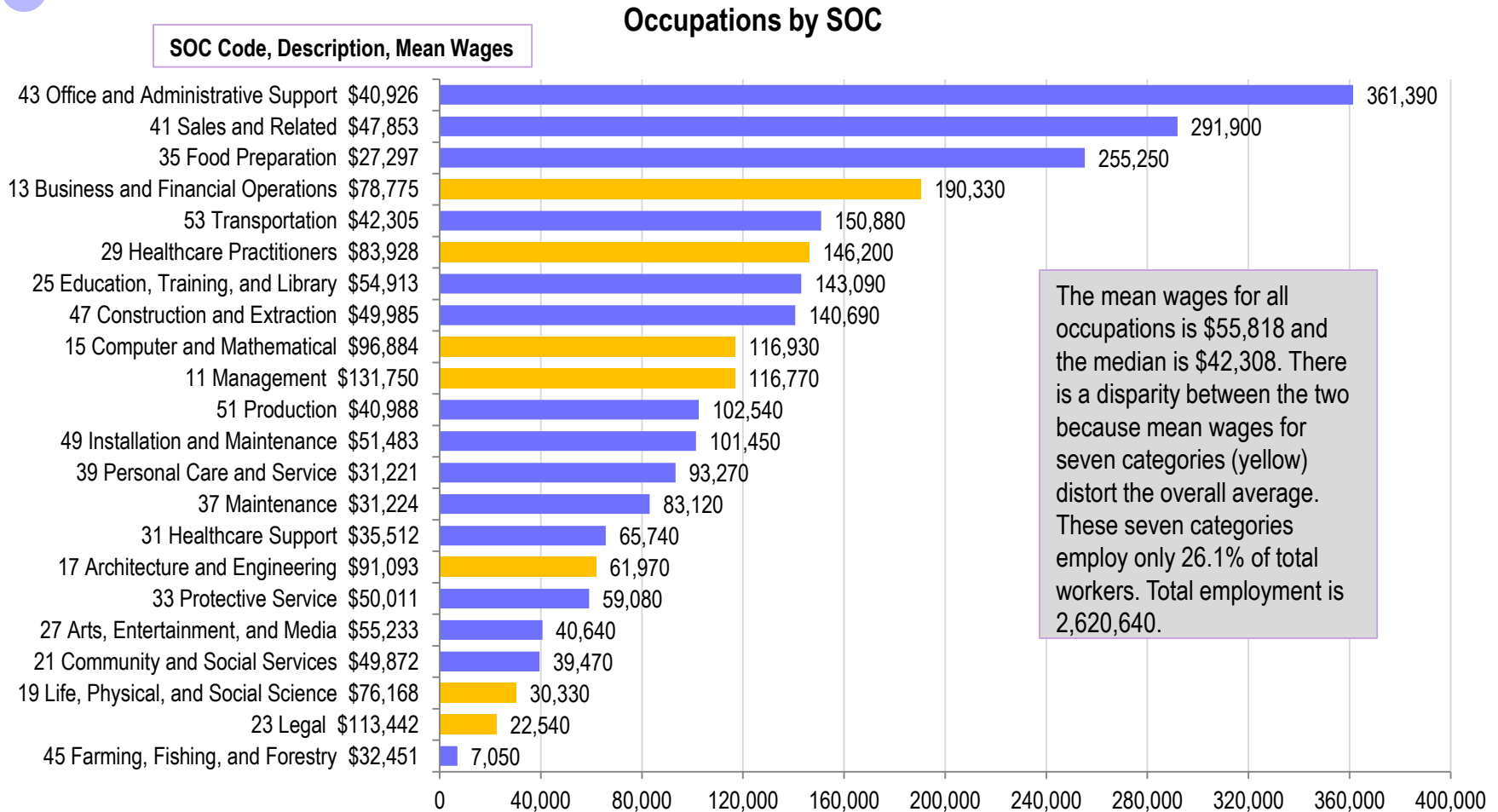
Just as industries are defined by NAICS codes, occupations are defined by 22 SOC codes. Economists typically look at industries when discussing the economy, but it is also valuable to look at SOC codes.

Key Points

- About half the occupations are in six categories: administrative assistants, sales, food preparation, financial, transportation, and healthcare.
- The mean wage for all occupations is \$55,818 and the median wage is \$42,308. There is a disparity between the two because mean wages for seven categories (yellow) distort the overall average. These seven categories employ only 26.1% of total workers.

Occupations by SOC

Colorado 2018



Source: Bureau of Labor Statistics, cber.co.



The Colorado Economy

Unemployment Rate, Change in the Labor Force, Initial and Continuing Unemployment Claims

Unemployment Rate vs. Colorado

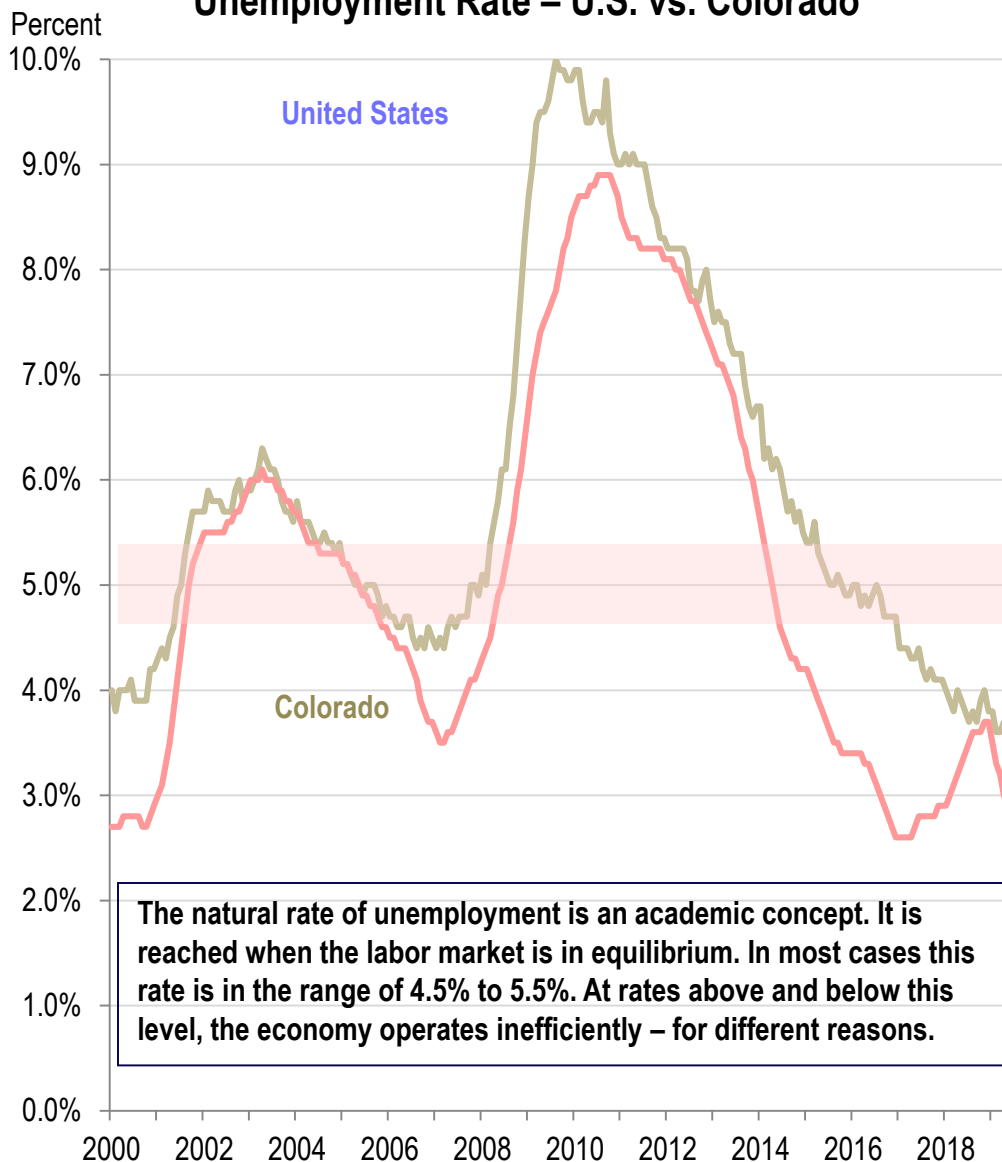
The U.S. and Colorado unemployment rates have declined since 2010 when the U.S. rate was 9.9% and the Colorado rate was 8.8%.

The U.S. rate fell below 4.5% in March 2017 and has been there for 30 months. By comparison, there was a 31-month period from November 1998 to May 2001 (not shown) when the U.S. rate was below 4.5%.

The Colorado rate dropped below 4.5% in October 2014 and has been there for 59 months. By comparison, there was an 89-month period from May 1994 to September 2001 (not shown) when Colorado's rate of unemployment was less than 4.5%.

In August 2019, the unemployment rate for Colorado dropped to 2.8% compared to 3.7% for the U.S.

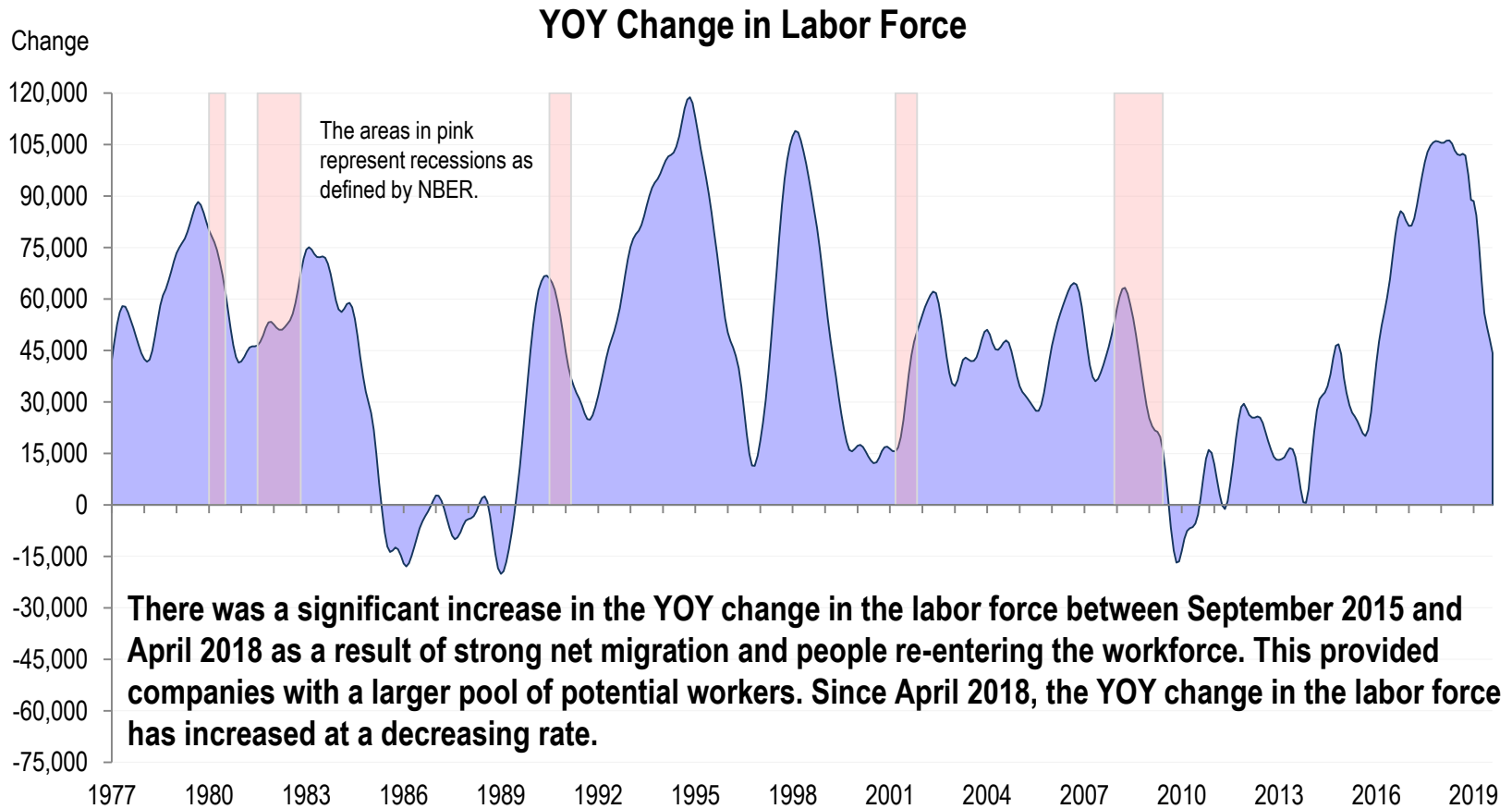
Unemployment Rate – U.S. vs. Colorado



Source: Bureau of Labor Statistics, SA; cber.co.

YOY Change in the Labor Force

Colorado

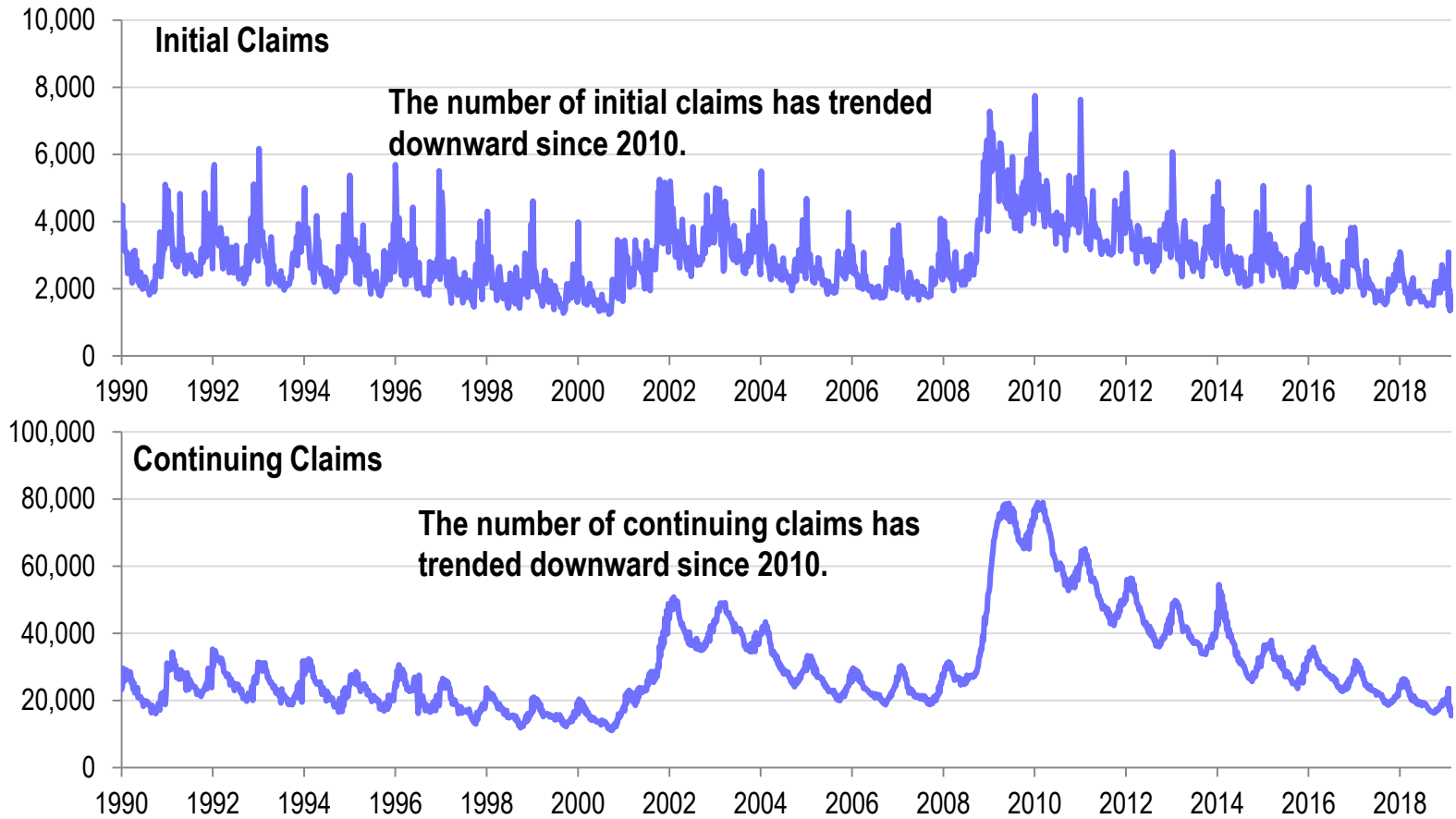


Source: Bureau of Labor Statistics, LAUS, NSA, NBER, cber.co.



Initial and Continuing Unemployment Claims

1990 to 2019 (Colorado)



Source: FRED, Department of Labor, NSA, cber.co.



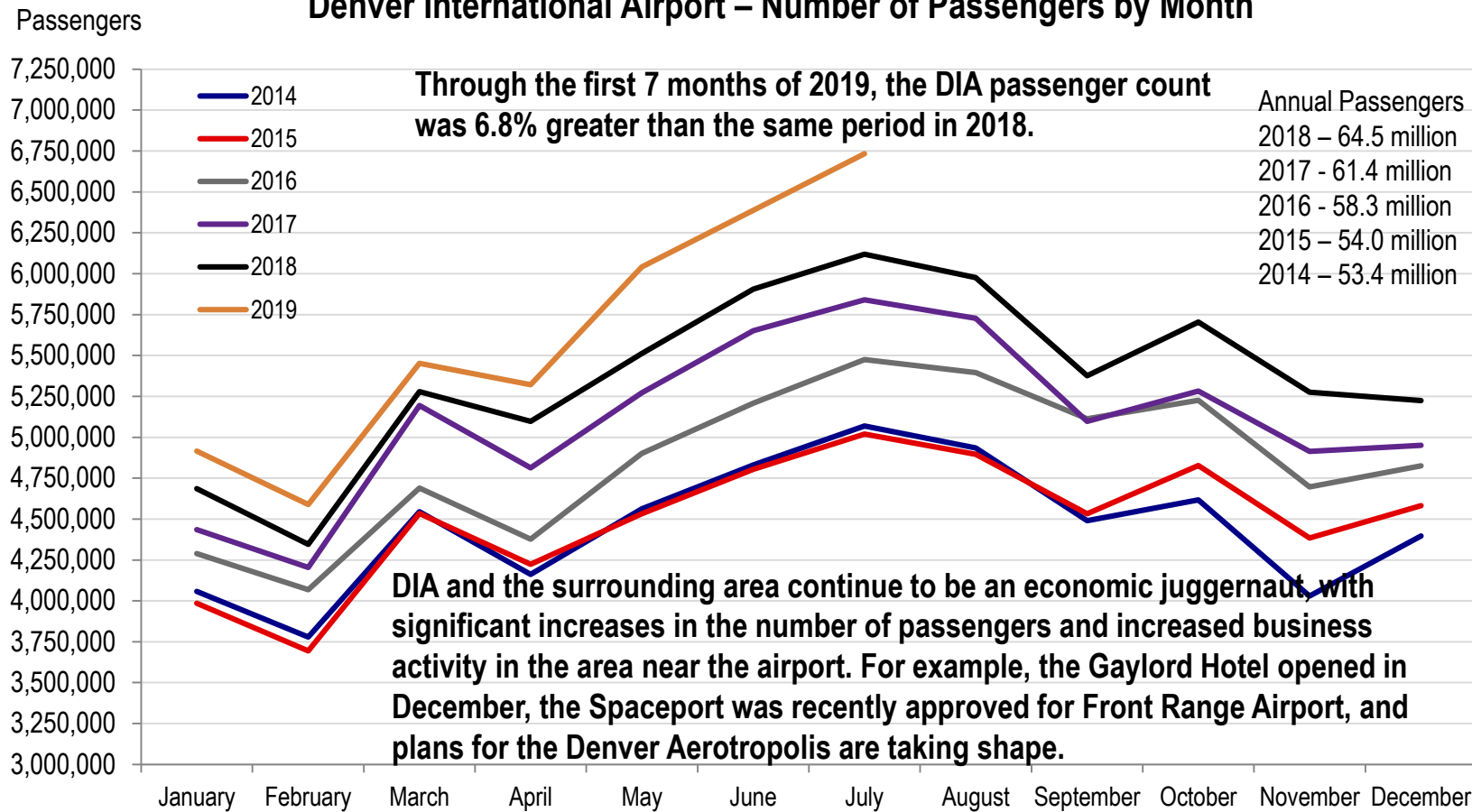
The Colorado Economy

DIA Passengers, Vehicle Registrations, and Venture Capital

Denver International Airport

Passenger Count

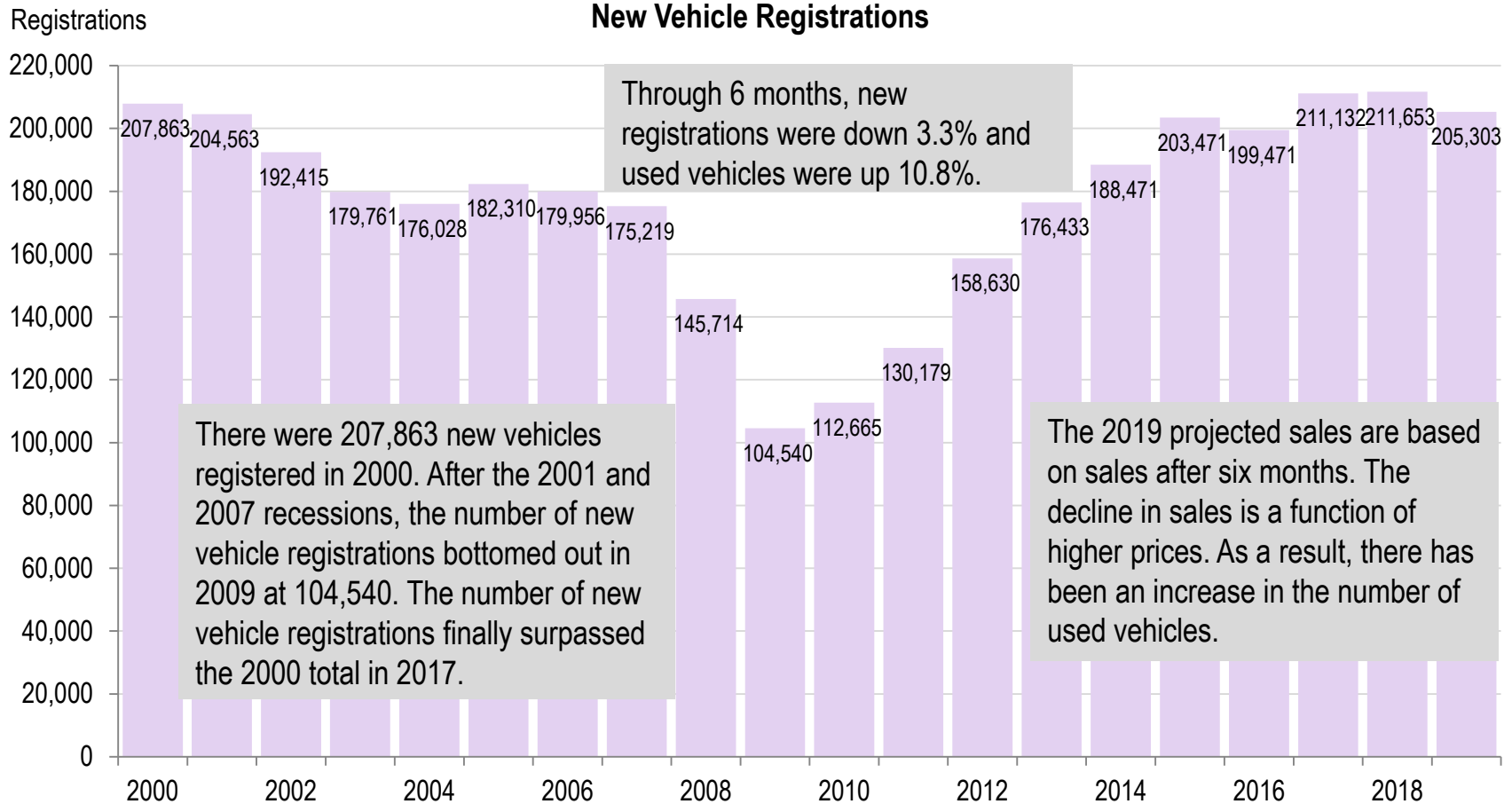
Denver International Airport – Number of Passengers by Month



Source: FlyDenver.com, cber.co.

New Vehicle Registrations

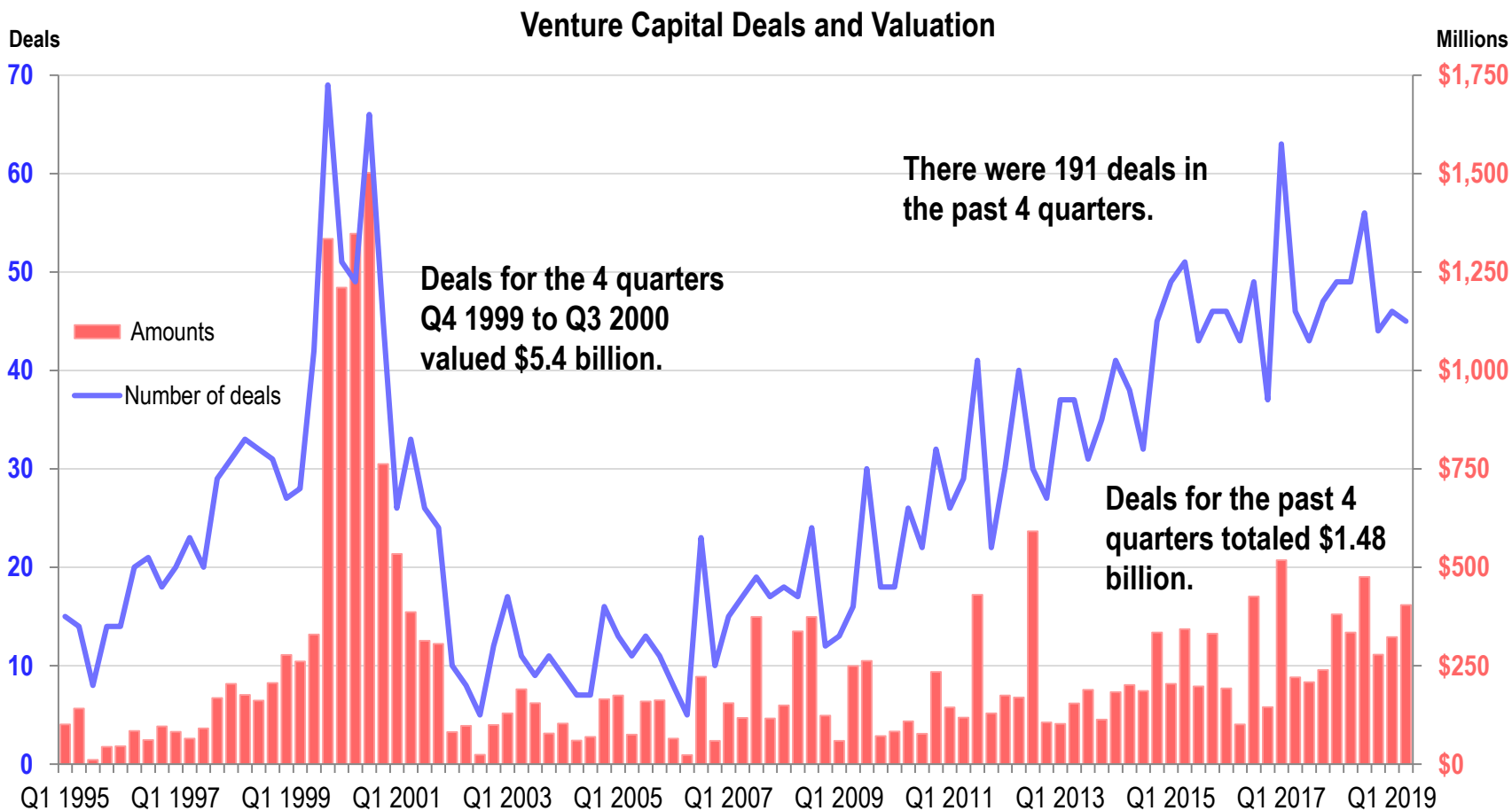
Colorado



Source: Colorado Auto Dealers Association, cber.co.

PWC Venture Capital Deals and Value

Colorado



Source: PWC, cber.co.



The Colorado Economy

Building Permits, Valuation, and Housing Prices

Colorado Permits and Valuation

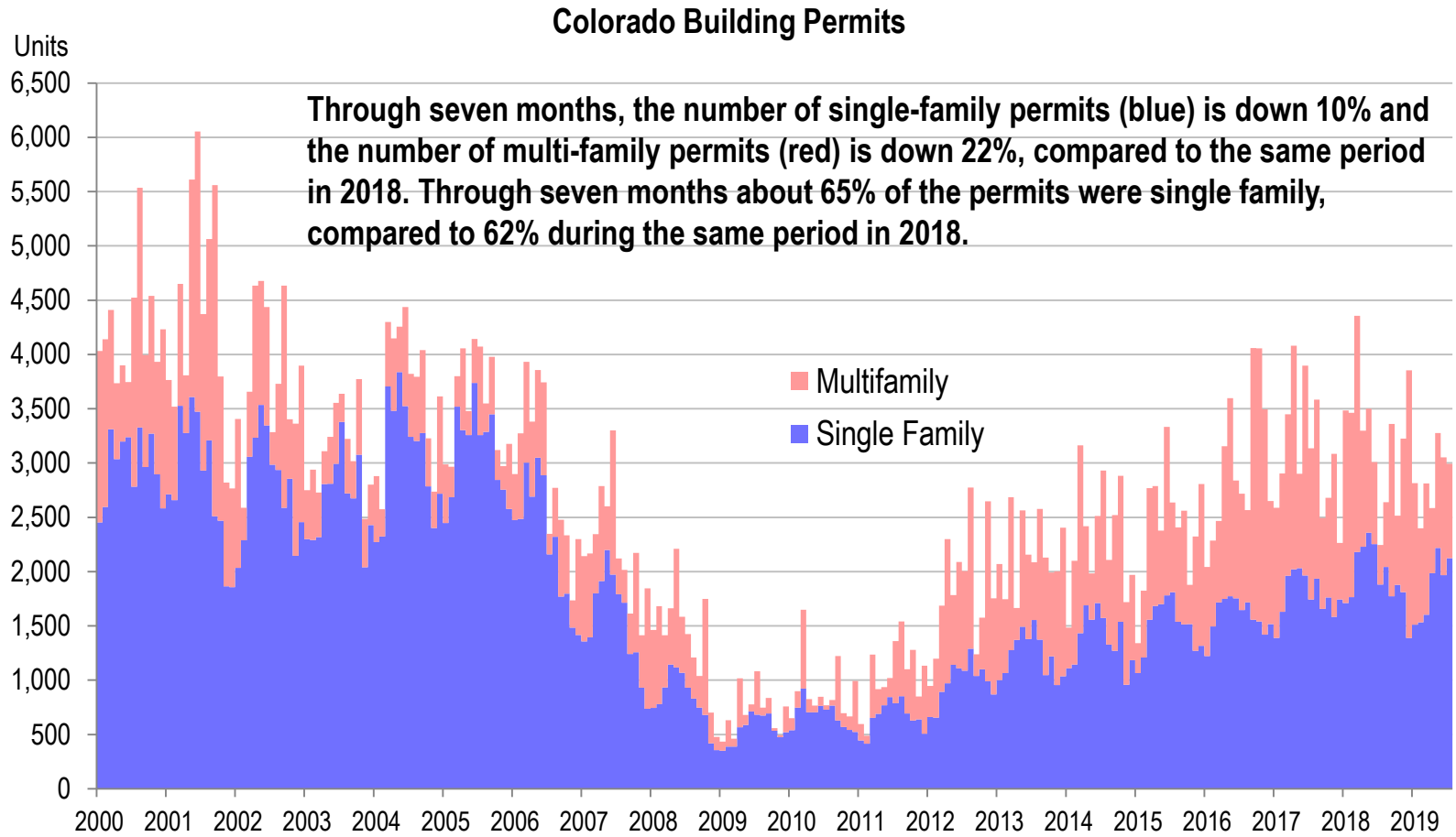
Colorado needs affordable housing! Permits are down and valuation is up.

Colorado single family permits and valuation are down significantly compared to a year ago. At the same time, valuation for single and multi-family permits is comparable to a year ago.

At a time when Colorado needs more housing and additional affordable housing, it appears that permits are being issued for mid to higher priced housing.

Colorado Residential Building Permits

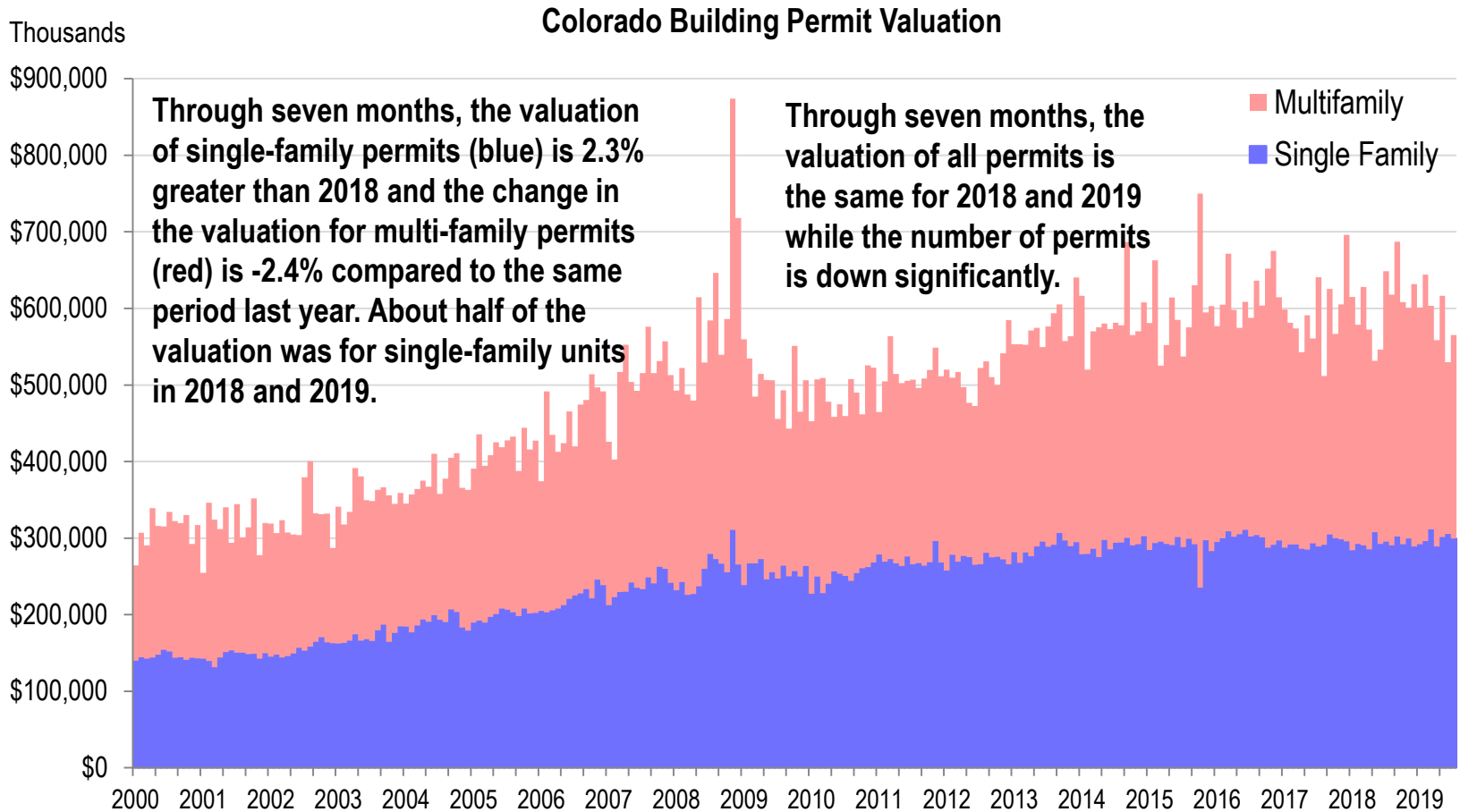
Units



Source: TAMU Real Estate Center, U.S. Census Bureau, cber.co.

Colorado Residential Building Permits

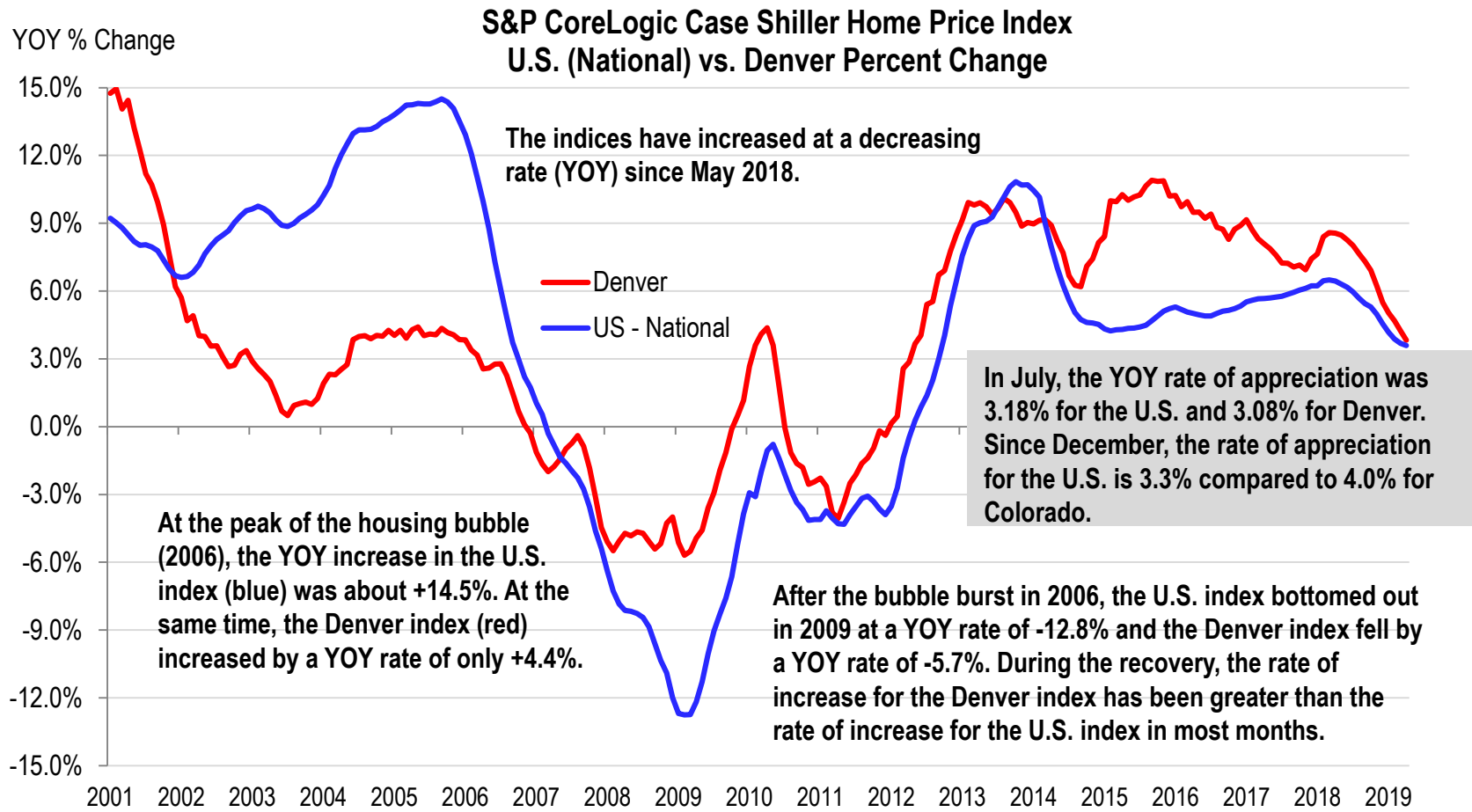
Valuation



Source: TAMU Real Estate Center, U.S. Census Bureau, cber.co. Note: Not adjusted for inflation.

Case Shiller Home Price Index

National vs. Denver Rate of Change



Source: S&P Core-Logic Case-Shiller, cber.co.

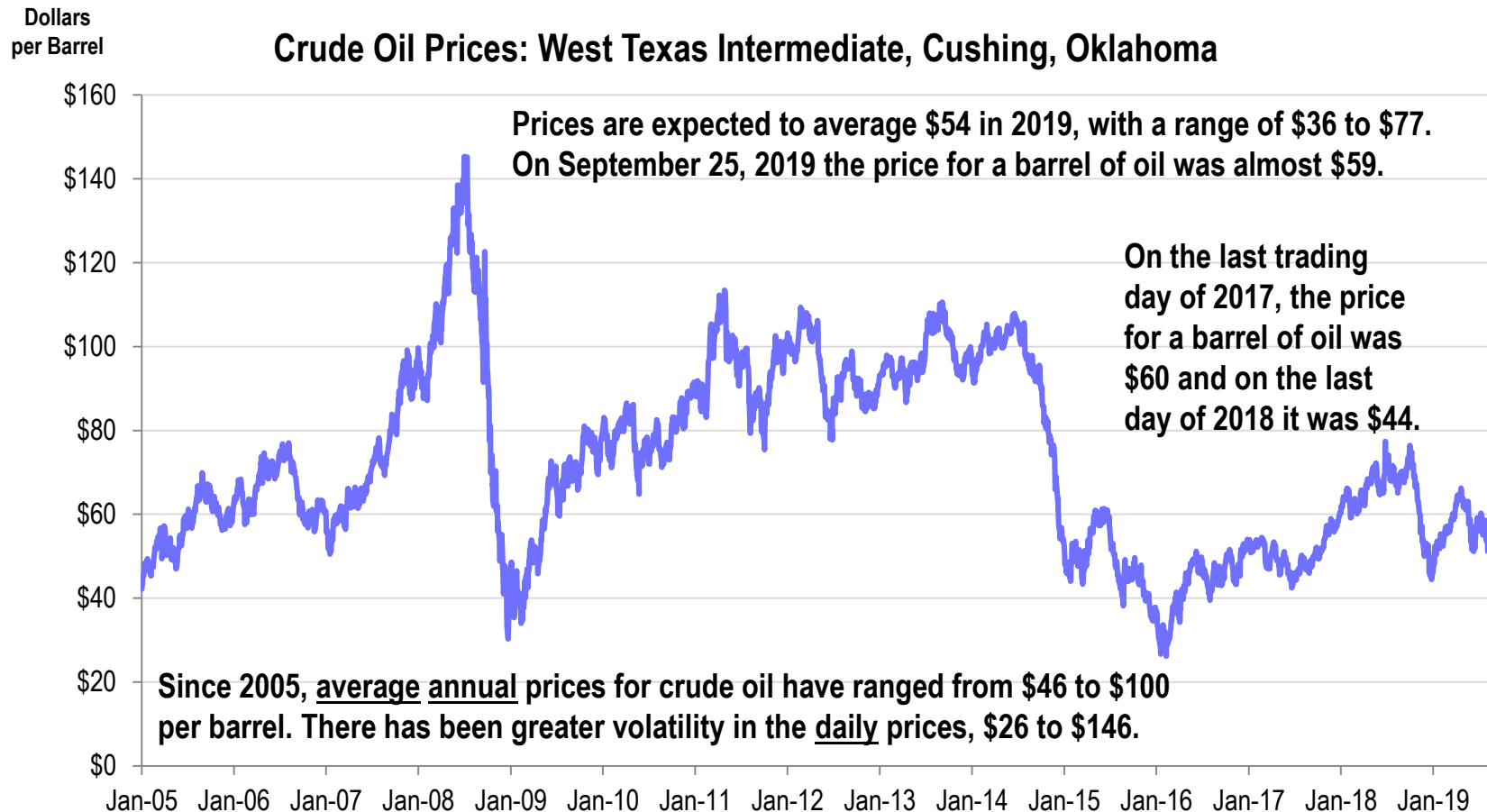


The Colorado Economy

Oil Production and Prices

Crude Oil Prices

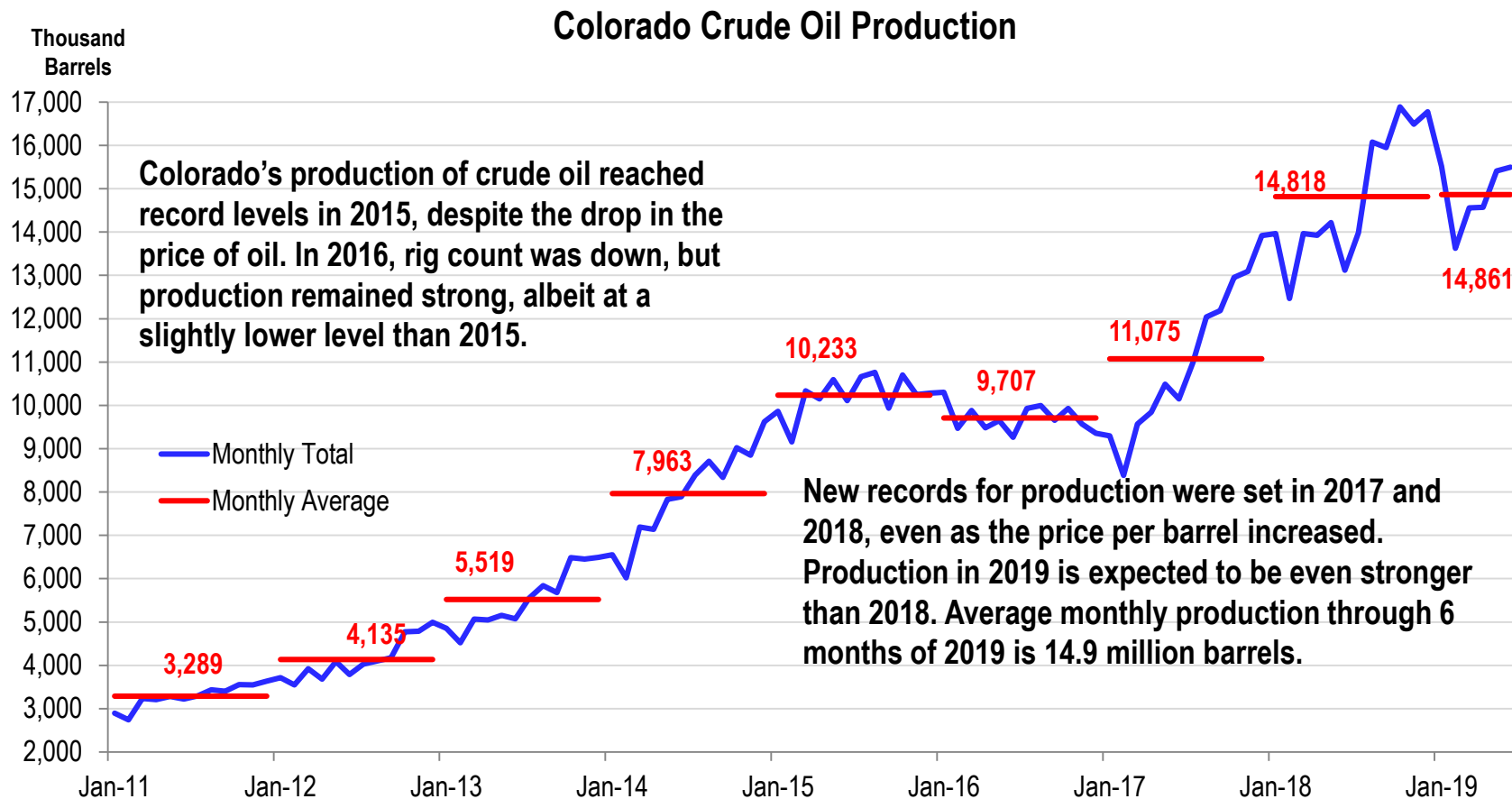
West Texas Intermediate



Source: FRED, EIA, cber.co.

Colorado Field Production of Crude Oil

2011 to 2019 (Thousand Barrels)



Source: EIA, cber.co.

Colorado-based Business and Economic Research <http://cber.co>

Crude Oil Production by State

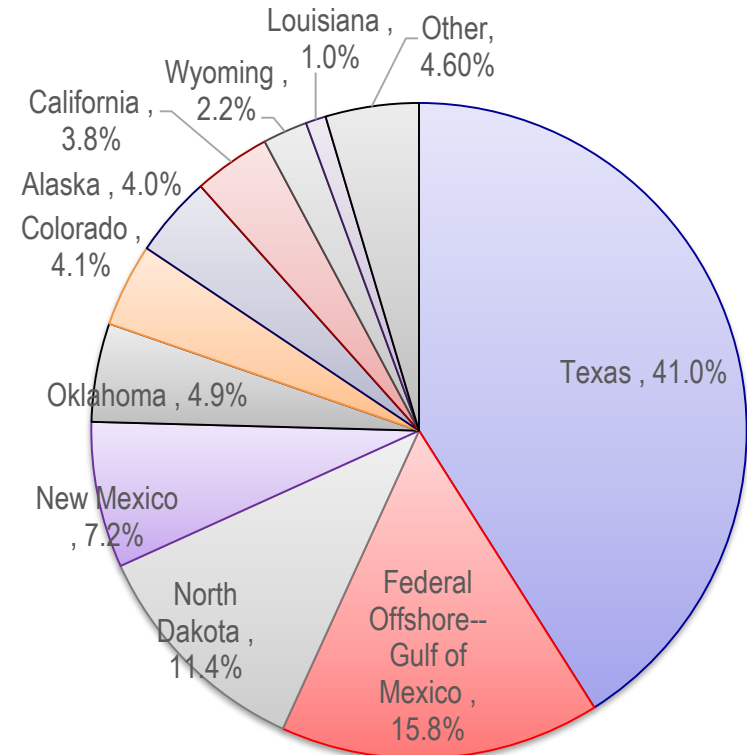
January - June 2019

Percent of Oil Production by State

In January 2019 oil was produced in 32 states plus two federal offshore regions (Gulf of Mexico and West Coast). Over the course of a year, there is very little change in the top 10 states.

Colorado accounted for 4.1% of the total oil produced. The industry plays an important role in the U.S. and Colorado economies and the country's efforts to be energy independent.

Percent of U.S. Production, 2019

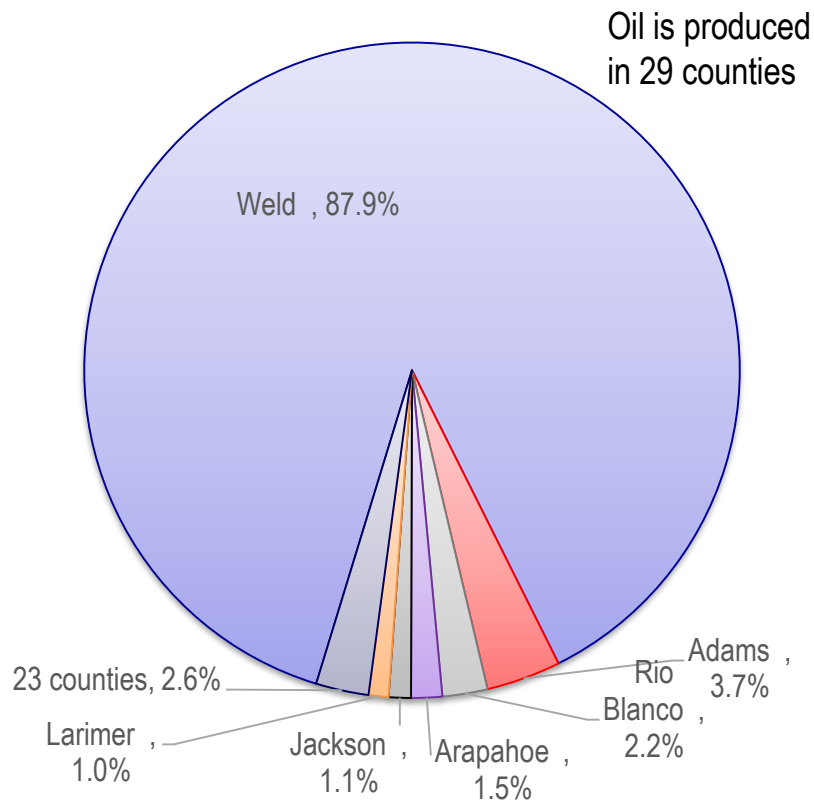


Source: EIA, cber.co.

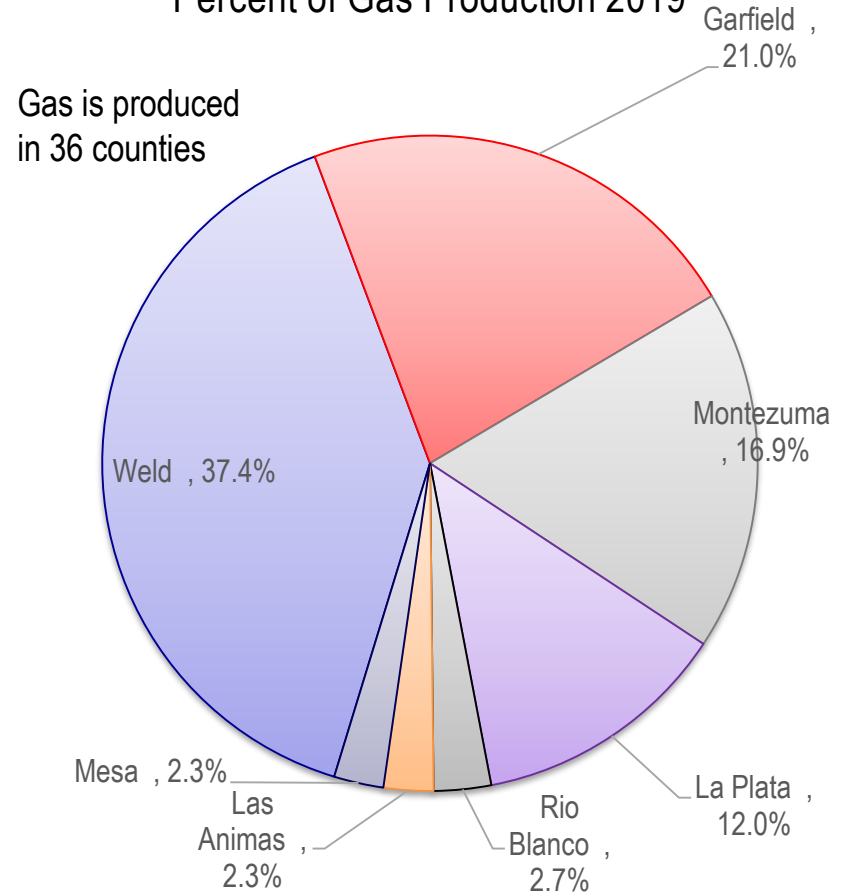
Production of Colorado Oil and Gas by County

2019

Percent of Oil Production 2019



Percent of Gas Production 2019



Source: COGCC, cber.co.

Extractive Industries

Renewables vs. Fossil Fuel

There are small countries that use 100% renewable sources for their electricity such as Albania, Iceland, and Paraguay. They use hydroelectricity and geothermal.

At the same time, countries such as Germany and Spain have made gallant efforts to move to 100% wind and solar. By some accounts, they have fallen short of their goals.

Many of the efforts to move to wind and solar in the United States have been successful.

In the eyes of many, the battles over Proposition 112 and SB-181 have turned into a dispute between renewables vs. fossil fuels.

While it is good to set lofty goals, our energy policy may be to optimistic and unrealistic about being able to achieve 100% renewables.

For a variety of reasons, fossil fuels will not be eliminated in the near-term. The projections in the charts on the following two slides illustrate that there will be a portfolio of fuel sources in the years ahead.

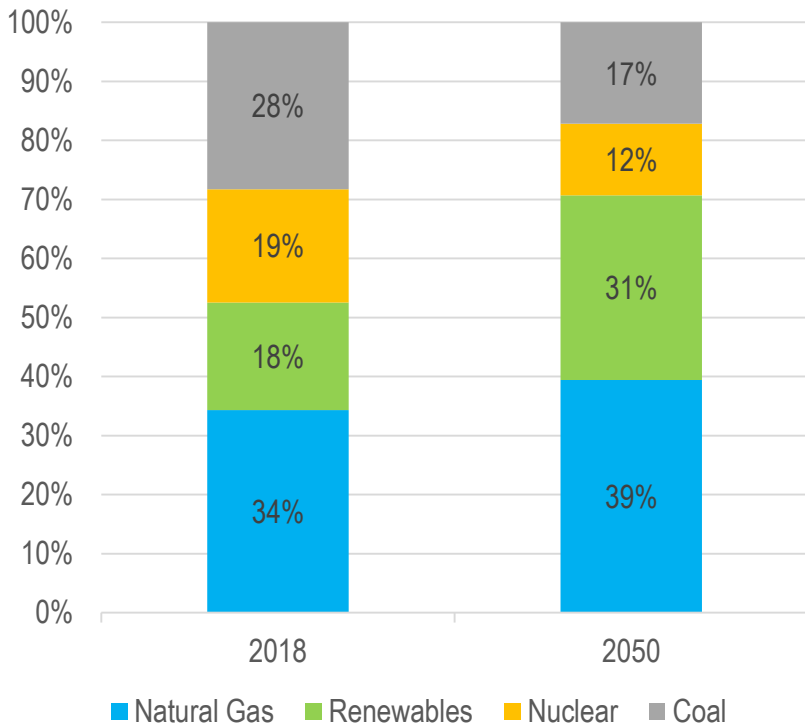
Extractive Industries

U.S. Electricity Generation Projections – 2018 v. 2050

U.S. Electricity Generation from Selected Fuels

4.1 trillion KWH in 2018 and 5.2 trillion in 2050

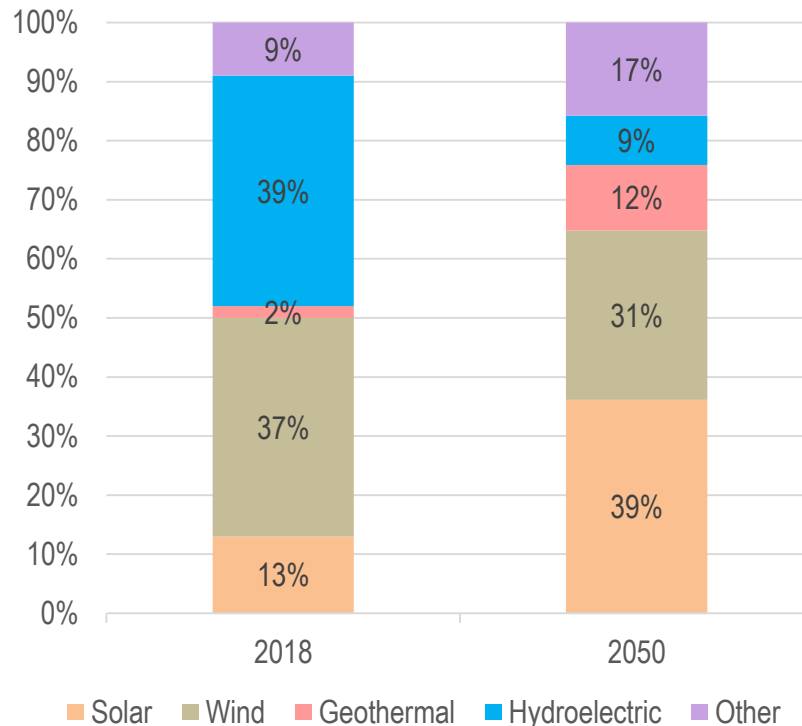
U.S. Fuels for Electricity Generation



Renewable Electricity Generation, Including End Use

750 billion KWH in 2018 and 1.7 trillion in 2050

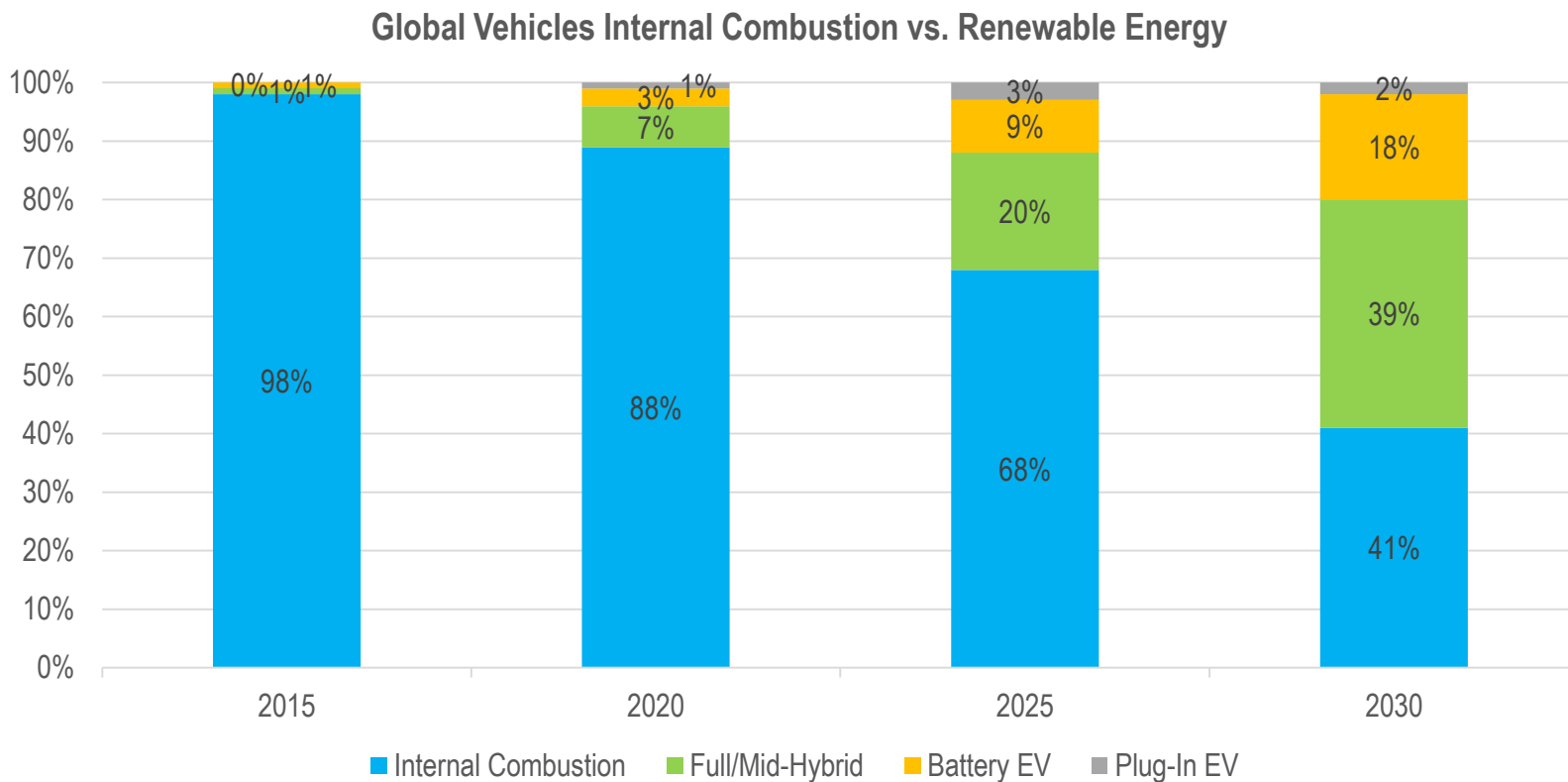
U.S. Fuels for Electricity Generation



Source: J.P. Morgan (October 2018), cber.co.

Extractive Industries

Global Vehicles Projections- Internal Combustion vs. Renewable Energy



Source: J.P. Morgan (October 2018) cber.co.



State Government Funding

Funding State Government and Business Climate Index



State Government Funding

The Colorado Legislative Council and Office of State Planning and Budgeting release economic forecasts four times a year. Their recent forecasts indicate they have less confidence in the state economy. They have lowered their forecasts for FYE June 2020 by a miniscule amount which may mean a reduction in funding and services. This section briefly discusses the state funding process.

State Government Funding

Fiscal Year and Allocation of Funding

The current Colorado fiscal year began July 1, 2019 and ends June 30, 2020.

The following two slides provide an overview of the state funding sources and expenditures.

Most Colorado citizens understand the importance of healthcare and human services, transportation, education, safety, and a judicial system that are fully or partially funded by the Colorado state government.

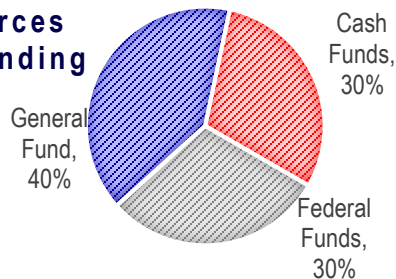
At the same time, most Colorado citizens lack a basic understanding of the funding process for these services. State legislators have control in allocating about 25% of the General Fund or 10% of the state budget for the above services.

State Government

Colorado State Budget

Colorado State Government Budget

Sources of Funding



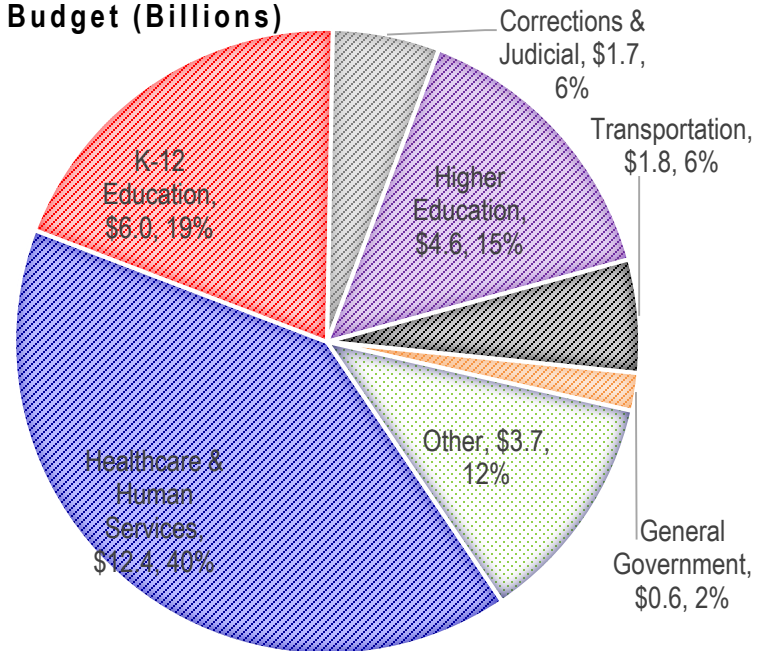
The current budget for 2019-2020 is \$30.6 billion.

Federal funds, are usually about 30% of the state budget and must be used for a designated purpose, such as transportation. Some federal funds must be matched, such as Medicaid, and others are passed through to local governments.

Cash funds are about 30% of the total state budget. They are generated by specific state services and are restricted to fund those services or prescribed program area. The largest source of cash funds, about 60% of the total, is college tuition.

General Funds, account for about 40% of the total budget. They pay for core services. The state legislature has control over about 25% of the general fund.

2019-2020 Budget (Billions)



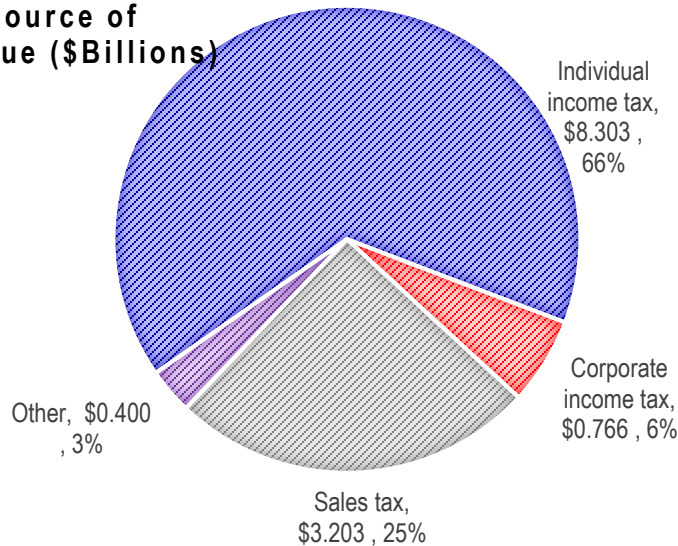
State Government

General Fund

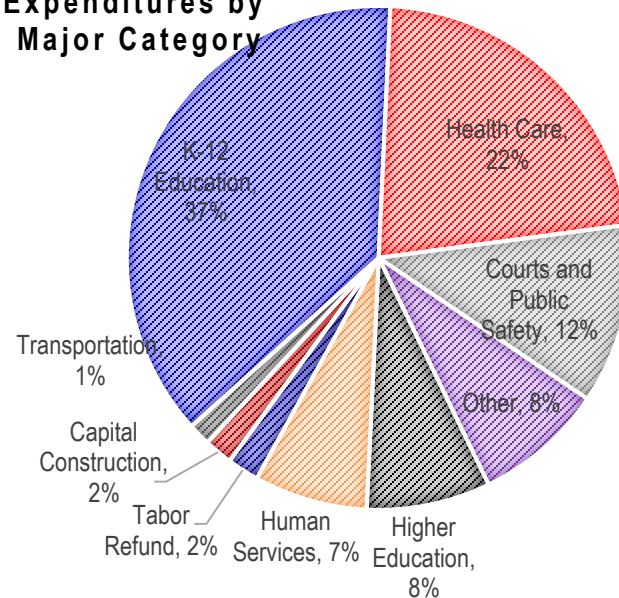
Colorado General Fund

Revenue from the General Fund pays for core services and accounts for about 40% of the total state budget. The legislature has little control over about 75% of the General Fund (K-12 education, health care, and corrections). About 68% of the fund's revenue is derived from income taxes and 25% from sales taxes. CLC forecasted the General Fund would be \$12.6 billion in 2019-2020.

Source of Revenue (\$Billions)



Expenditures by Major Category



Source: Colorado Legislative Council and Office of State Budgeting and Planning, cber.co.

State Government

Tax Structure

The Tax Foundation, <https://taxfoundation.org/>, produces an annual report, *The State Business Climate Index*, that ranks states based on their business climate or tax structure based on their taxes for corporations and individuals, sales and property taxes, and unemployment insurance taxes.

The rankings and maps on their website clearly show that every state has different tax structures and means of generating revenue to provide services to its residents.

In the 2019 report, Colorado was ranked #18.

The state is ranked 12th through 16th for its property tax rates and corporate and individual tax rates. It is rated favorably for its UI and sales tax rates (the sales tax rate includes an average of local and special district taxes).

The table on the following chart shows the top 5 states, Colorado, and the bottom five states.

The top five states include Wyoming, Alaska, South Dakota, Florida, and Montana.

As might be expected, the bottom states include Arkansas, Connecticut, New York, California, and New Jersey.

State Government

Every State Does it Different, We're Number 18

Ranking on Five Component Taxes						
State	Overall Index Rank	Corporate Tax	Individual Income Tax	Sales Tax	Unemployment Insurance Tax	Property Tax
Wyoming	1	1	1	6	36	38
Alaska	2	25	1	5	35	23
South Dakota	3	1	1	33	39	28
Florida	4	6	1	22	2	11
Montana	5	12	22	3	21	10
Colorado	18	16	14	38	40	12
Arkansas	46	40	40	44	34	26
Connecticut	47	29	43	30	23	50
New York	48	7	48	42	31	47
California	49	31	49	43	17	14
New Jersey	50	47	50	45	32	48

Source: <https://taxfoundation.org/publications/state-business-tax-climate-index/>

Funding Government Services

Constraints and Possible Funding Sources

Constraints

There are three amendments to the Constitution that were well-intended, but they have been problematic. Collectively they constrain the legislature's ability to increase revenues.

- In 1982, voters added the Gallagher Amendment to the state constitution in order to secure ongoing relief from rising residential property taxes.
- In 1992, the electorate approved Taxpayer's Bill of Rights' (TABOR). In simple terms, it requires legislators and local officials to put proposed tax hikes and bond measures to a vote of the people. In addition, TABOR stipulates that revenue can increase by a formula based on the need for additional services and the added costs for services (population increase and inflation).
- In 2000, voters approved Amendment 23. It required the amount of school funding to increase each year by the rate of inflation.

Possible Funding Sources

Currently, Coloradans have limited options for increasing state funding.

- It is unlikely voters would repeal Gallagher, because it would result in significantly higher property taxes.
- Residents are unlikely to support a repeal of Amendment 23 because they feel it ensures a certain level of funding for K-12.
- The state is clearly divided on TABOR. Continued work-arounds are likely.
- Additional funding could be addressed through statewide ballot measures, although the electorate has been cautious about approving such initiatives.
- Local school districts have successfully raised money through local bond issues.
- Higher education has increased tuition and fundraising to offset expenses.
- Toll lanes have been added and outside contractors are managing toll roads in the Denver metro area.



State Government Funding

Key Points

Most Coloradans agree that state legislators are constrained in their management of state funds by the state constitution.

- Have these constraints been beneficial or detrimental to the state in the past?
- Does the Colorado state government have enough funding to effectively provide residents with appropriate services in the future?



K-12 Education



K-12 Education

The following slides show the struggle that K-12 education has had recovering from the Great Recession.

Despite the “safety net” of Amendment 23 and local bond issues, schools have struggled to maintain their facilities, hire an “adequate” number of teachers, increase teacher wages, raise the average funding per pupil, and attract students.

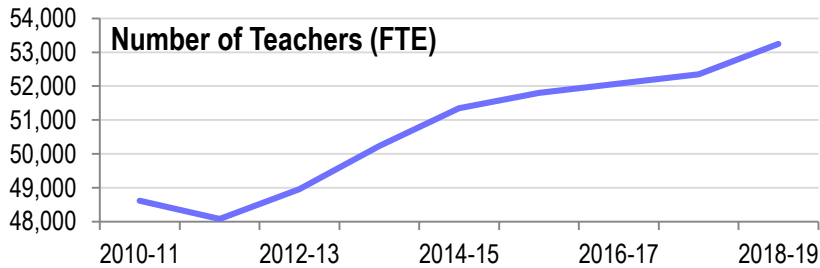
Beginning in 2014-2015, Colorado K-12 began to see the impact of a reduced fertility rate across the U.S. Enrollment is increasing at a decreasing rate. About half the counties in the state are struggling to maintain their small population base. CDE reports indicate that FTE K-12 enrollment increased by only 1,256 students statewide in 2018.

Property taxes are increasing at a declining rate, about half the counties in the state are struggling to maintain their small population base, and a downturn in the economy will occur at some point. As a result, it will be necessary to secure more funding for K-12 education from the General Fund.



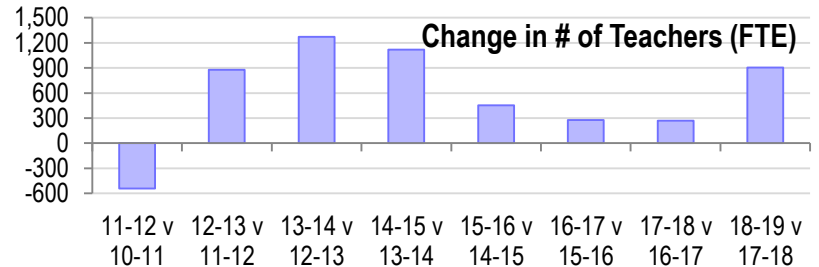
K-12 Education

Number of Teachers (FTE), Average Annual Wages



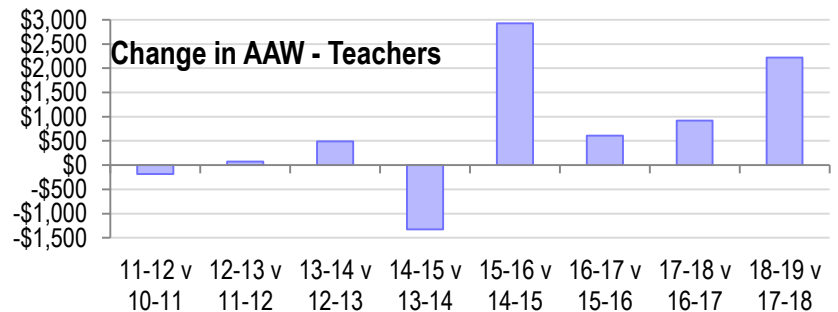
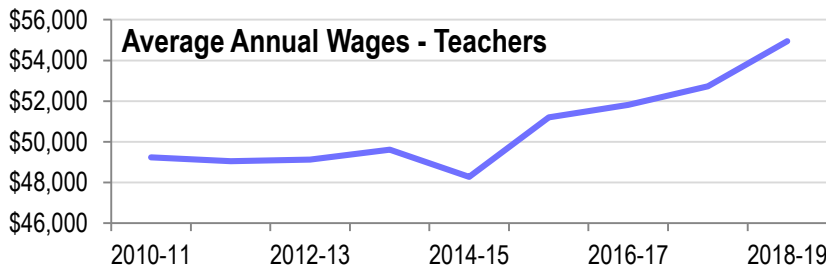
There were 53,251 teachers (FTE) for the 2018-2019 school year.

This was an increase of 4,629 teachers (FTE) for the 8 years 2010-2011 vs. 2018-2019 (8 Years). This is an annualized rate of growth of 1.1%. The range in the change of teachers (FTE) was -542 in 2011-2012 to 1,271 in 2013. In 2018 there were 904 teachers added.



AAW were \$53,521 for the 2018-2019 school year.

This was an increase of \$5,722 for the eight years between 2010-2011 vs. 2018-2019. This is an annualized rate of growth of 1.4%. There was a decrease in AAW of \$951 in 2014-15, followed by an increase of \$6,673 over the last four years.

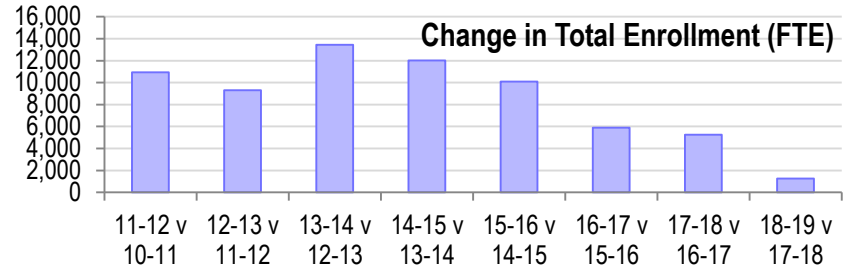
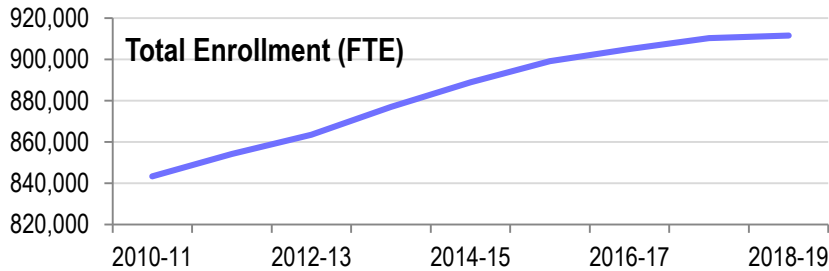


Source: CDE, BLS, cber.co.



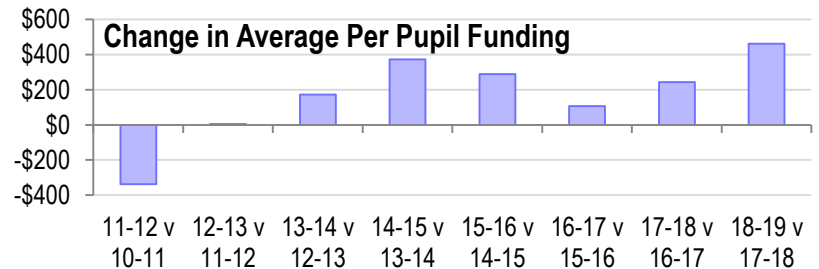
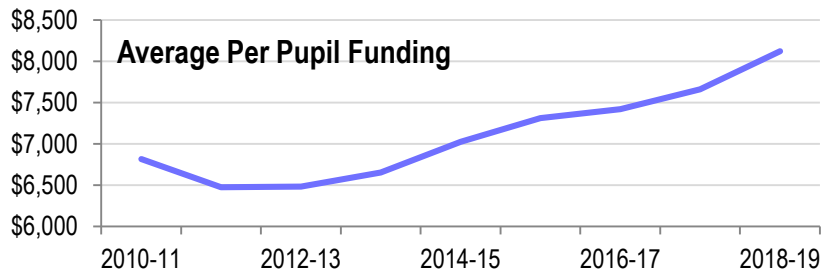
K-12 Education

Enrollment (FTE), Average Annual Funding



There were 911,536 FTE students in 2018-2019. Over this eight-year period total enrollment increased by 68,820, an annualized rate of growth of 1.0%. Since 2013-14 FTE enrollment has declined. In 2018 FTE enrollment increased by only 1,256 FTE students.

In 2018-2019 Average Funding per Pupil was \$8,123. Over this eight-year period it increased by \$1,310, or an annualized rate of 2.2%. The strongest year of growth in pupil funding was 2018-2019, when it increase \$461, or 6.0%.



Source: CDE, BLS, cber.co.



K-12 Education



Change in Colorado Population for 5 to 18 yrs., 14-18 yrs., 17-18 yrs.

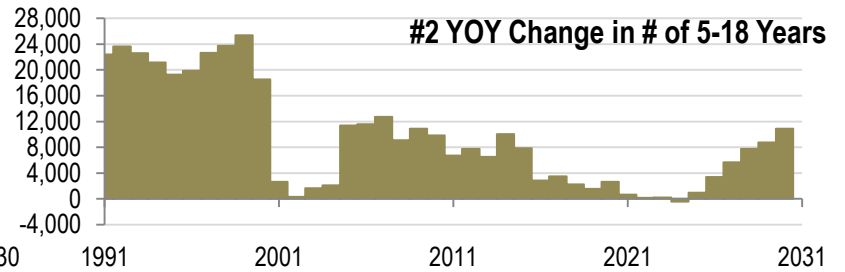
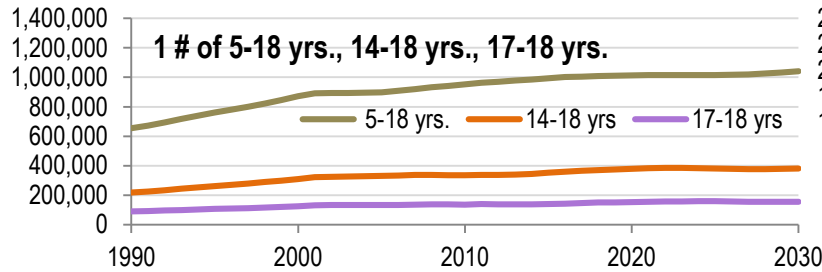
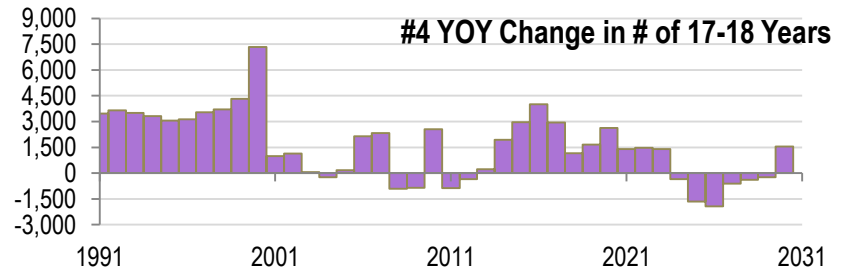
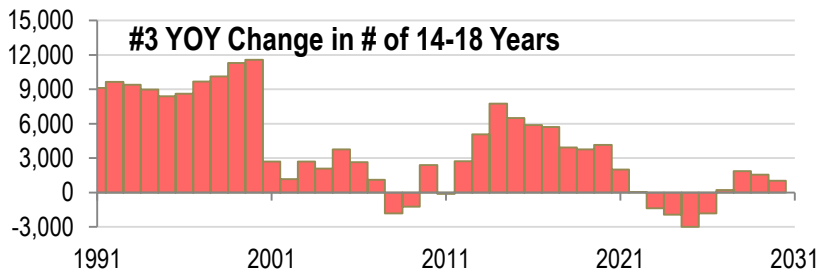


Chart #1 shows the number of Colorado residents in the categories 5-18 years, 14-18 years, and 17-18 years over a 40 year period, 1990 to 2030. The 5-18 years category increased at an annualized rate of 1.17%, the 14-18 years category increased at an annualized rate of 1.40% and the 17-18 years category increased by 1.36%.

Chart #2 shows the number of 5-18 year-olds is projected to increase at a decreasing rate from 2015 to 2026. Chart #3 shows the number of 14-18 year-olds is projected to increase at a decreasing rate from 2015 to 2036. Chart #4 shows the number of 17-18 year-olds is projected to increase at a decreasing rate from 2017 to 2038.



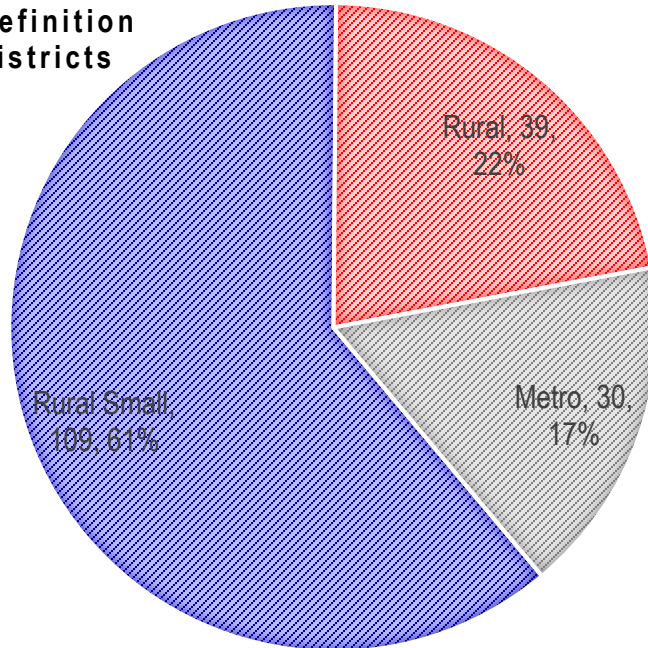
Source: CDE, BLS, cber.co.



K-12 Education

School Districts

Size Definition
of Districts



Size Definition by District

- CDE reports there are 178 total districts.
- Approximately 16% (136,000+) of the student population attends school in rural school districts.
- Rural districts make up 83% of the total districts.
- Overall, 88 districts have fewer than 500 students.
- 104 districts, primarily rural, have 4-day school weeks.

Source: CDE, cber.co.



Colorado K-12 Education

Key Points

It is the intent of Colorado's K-12 education system to utilize state funding to maximize the benefits of the state's education system to students, employees, and taxpayers.

- What is the purpose of K-12 education? Is its purpose to prepare students for life and to be responsible citizens? Is its purpose to provide them with skills to excel in the workforce or to attend college?
- How is Colorado going to fund education so that students have the same opportunity to succeed, as opposed a program that emphasizes the same level of funding for all students?
- How is Colorado K-12 going to create equity between education programs in small districts and those in larger districts, i.e. the Colorado Divide?
- How is Colorado K-12 going to adjust its programs to react to a lower fertility rate and change age and ethnic demographics?



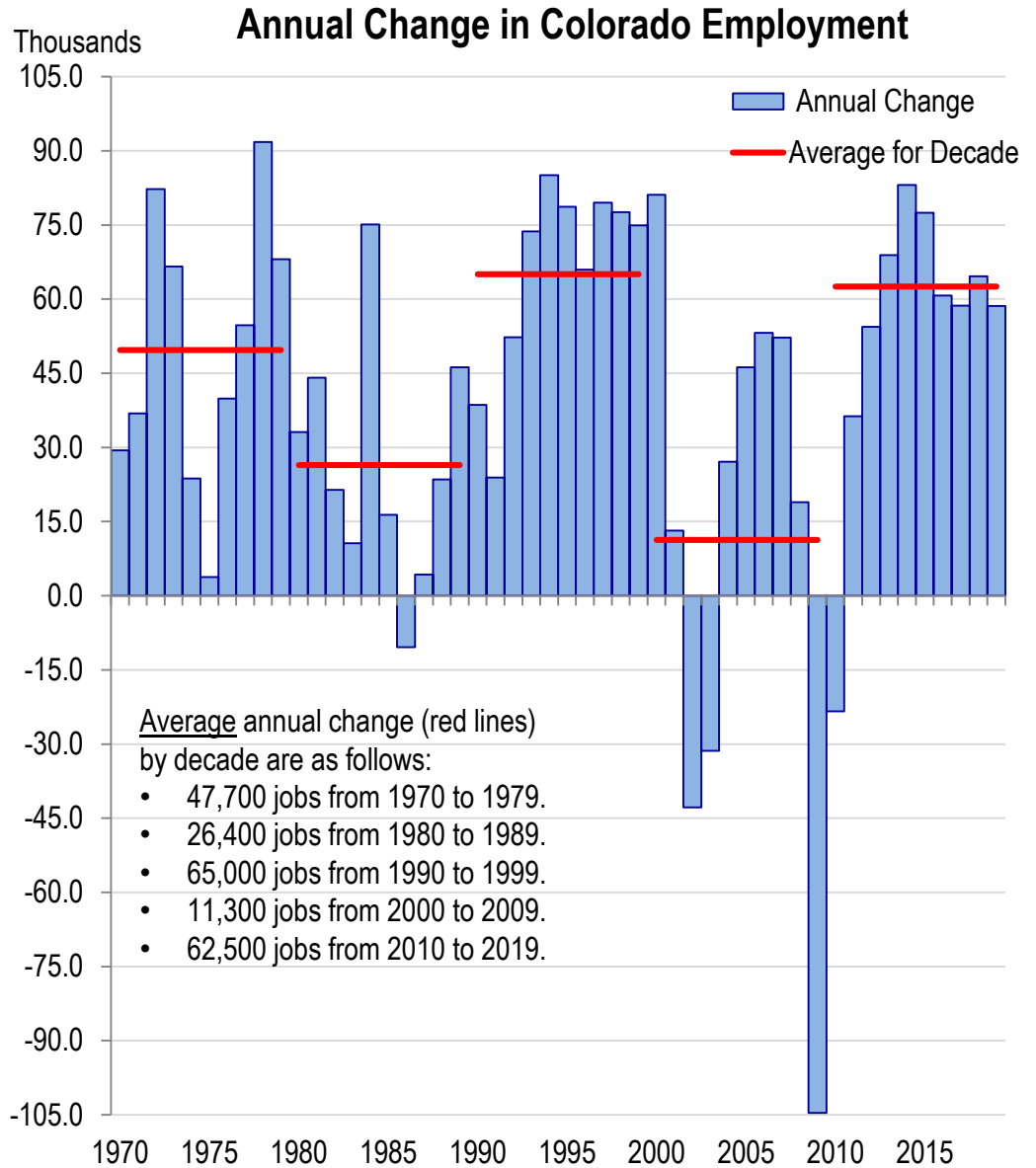
The Colorado Economy

Summary

Annual Employment Change in Colorado Employment

Through the first 8 months of 2019, average employment is 52,400 jobs, or 1.9%, greater than the same period in 2018. The current job growth provided by BLS for 2019 is most likely understated.

Job growth for 2019 was projected to be 58,600 workers (see chart), an increase of 2.2%. This projected rate of job growth for Colorado will again be greater than the rate for the U.S.



Source: Bureau of Labor Statistics, cber.co.



cber.co
Economic Trends for Colorado Through August 2019

This analysis is for informational purposes only. Any opinions or interpretations of data are those of the presenter. As such, they do not represent the viewpoints of any group or particular organization.

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For additional information contact cber.co at cber@cber.co or gary@garyhorvath.com.

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Gary Horvath has produced annual employment forecasts of the state economy for over 25 years. They have been supplemented by monthly economic updates and indices that track economic performance over the short term. In addition, he has directed three statewide analyses that included reviews of all 64 county economies.

Horvath was the principal investigator for a state and federally funded project to prepare a nanotechnology roadmap for Colorado. As well, he was a co-founder of the Colorado Photonics Industry Association, a trade group for Colorado’s Photonics cluster. Horvath has been an active board member of the group since its inception.

Horvath has also served on the Board of Directors for the Economic Development Council of Colorado, Northwest Denver Business Partnership, Adams County Economic Development, and Broomfield Economic Development Corporation. Horvath has also been the lead for the photonics/electronics cluster in OEDIT’s early stage and proof of concept grant program.